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Annual Literature Review

Emerging Trends and Areas of Interest in Police Research and Education

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Executive Summary

This literature review offers an evidence-based guide to inform CPKN's future focus in police education and professional development. An examination of peer-reviewed, open access Canadian and American academic literature published in English in 2024, revealed four key themes: mental health and wellness, militarization and use of force, social media impacts on police-public relations, and technologies for policing.

Mental Health and Wellness

Rates of mental health disorders among police professionals have continued to rise, remaining a critical topic for North American researchers. In-person and online mindfulness and meditation training programs have shown positive impacts on police stress levels and overall wellbeing. Academics have emphasized the need for comprehensive, evidence-based mental health programs tailored to police officers, as current training is insufficient. They recommend online mindfulness programs and stress the role of police leadership in fostering a culture that prioritizes mental health, diversity, early intervention, and consistent wellness practices.

Militarization and Use of Force

There are nuanced dynamics within police militarization, particularly the use of force, tactical armoured vehicles, and emergency response teams. Further, research demonstrates gender differences and the impact on public perceptions in this area. Enhanced tactical training and de-escalation techniques could improve outcomes while also balancing the risks of damaging public perceptions of police legitimacy. There is also significant variation in how police agencies define and report tactical deployments, highlighting the need for standardized practices to ensure consistency in training and incident responses. Addressing these concerns is crucial for maintaining officer safety, transparency, and fostering better police-community relationships.

Social Media Impacts on Police-Public Relations

In 2024, research on social media's impact on police-public relations highlighted the targeting of police via social media and its influence on public perceptions of police. Social media can promote anti-police sentiments, with police often provoked and filmed, leading to frustration and concerns about police psychological safety. To enhance public perceptions and police legitimacy, researchers suggest clear policies and training for police social media use, media literacy training to handle being filmed, and strategies to maintain a professional public image and public trust.

Technologies for Policing

In 2024, researchers examined policing technologies such as artificial intelligence (AI), body-worn cameras, and virtual reality (VR). Predictive policing using AI showed crime reduction but raised concerns about accuracy and biases. Similarly, police use of AI facial recognition technology has been flagged for bias concerns, inaccuracies, and privacy law violations. Ethical guidelines, public consultations, and rigorous evaluations are recommended to ensure effective and unbiased use of AI technologies. Interestingly, AI-assisted reporting was also not found to reduce time spent on such reports.

Research also highlighted both the benefits and limitations of body-worn cameras in policing, including their impact on use of force and public perceptions. Findings suggest the need for standardized policies and training to address limitations and improve transparency in police-civilian encounters.

Finally, VR training for police showed promise in stress management and de-escalation techniques but raised concerns about addressing systemic issues like police brutality. Effective VR training requires immersive scenarios, collaboration with subject-matter experts, rigorous research to evaluate its effectiveness, and should be implemented alongside other reform measures.

Conclusion

These four research themes demonstrate the continuous evolution of policing challenges, reflecting while highlighting new areas of concern related to the emergence of new policing technologies and the impact of social media on police-public relationships.

Introduction

The field of policing is constantly evolving, driven by societal changes, technological advancements, and a growing body of research into best practices. As the leading Canadian online learning provider for public safety professionals, the Canadian Police Knowledge Network (CPKN) plays a crucial role in supporting this evolution.

This literature review aims to provide an updated overview of the North American academic research landscape from 2024, highlighting emerging trends and areas of interest in policing with implications for police training and professional development.

The results of this review will serve as an evidence-based guide to help CPKN identify potential areas of focus that align with both the needs of the police community and the latest research in the field. By staying abreast of these trends, CPKN can continue to ensure it is proactively responding to the public safety community's training needs and providing relevant, evidence-based learning solutions.

Methodology

This literature review was conducted using a systematic approach to identify, select, and analyze relevant research on areas of interest in policing with implications for police education and professional development. The primary source of literature for this review was Google Scholar, a comprehensive database of scholarly literature across many disciplines and sources. Manual hand searches of the following journals were conducted based on their tendency to publish policing-specific studies: *Police Practice in Research*, *Journal of Community Safety and Well-Being*, *Applied Police Briefings*, *Policing and Society*, and *The Police Journal*.

Initial inductive Boolean searches and truncations (ex. "police OR law enforcement," "police AND training," and "police AND education") were used to identify relevant peer-reviewed articles written in English. These searches filtered results to studies conducted in Canada published between January 1, 2024, and December 31, 2024. Key themes were identified when more than four Canadian articles about a specific topic were found (ex. "social media"). Search terms were then changed to reflect key themes (ex. "police AND social media AND training") and the geographical location filter was expanded to include studies from the United States of America (USA).

Studies were selected based on their relevance to the aim of this review and their accessibility. Only studies that were open-access and provided recommendations for police education and professional development that would be relevant for Canadian policing were included in this review.

Literature Review

CPKN's 2024 review of the 2018-2023 literature identified four key themes relevant to policing education and professional development: the professionalization and standardization of police education, de-escalation and use of force training, mental health and wellness in policing, and cybercrime and digital literacy.

This review saw similar themes, as Canadian scholars remained focused on trends in police mental health and wellness, and in police militarization and use of force in 2024. The focus on technology in Canada and the USA appears to have shifted from cybercrime to body-worn cameras, VR in police training, and AI integration to enhance police operations. Finally, there was an emergent interest on the impact of social media and public perceptions on policing in 2024, primarily in Canada. Each theme is discussed in turn below.

Mental Health and Wellness

Police mental health and wellness has been a consistent topic of interest for researchers, with 2024 study findings indicating Canadian police professionals' psychological health has continued to decline at significant rates (Fleischmann & Lair, 2024).

In a survey to assess the rates of a variety of mental health disorders among Royal Canadian Mounted Police (RCMP) members, officers screened 54.6% higher for post-traumatic stress disorder (PTSD), major depressive disorder, panic disorder, social anxiety disorder, general anxiety disorder , cannabis use disorder, and alcohol use disorder than the general population, which was an increase of 14.5% from pre COVID-19 (Carleton et al., 2024 in Fleischmann & Lair, 2024). Higher rates of mental health disorders were reported by officers working in British Columbia, Alberta, and Saskatchewan compared to those working in Ontario and Quebec. PTSD was more frequently reported by male officers than female officers, by separated or divorced officers than by single officers, and by officers aged 40-49 compared to their younger and older counterparts. Officers who self-identified their ethnicity as Asian, Black, Indigenous, Hispanic, or "prefer not to disclose" reported higher rates of PTSD, Major Depressive Disorder, and Generalized Anxiety Disorder than White officers (Carleton et al., 2024 in Fleischmann & Lair, 2024).

While further research is needed to investigate operational stressors that may contribute to the prevalence of mental health disorders among specific police officer groups, Workman-Stark (2024) has highlighted several contributing factors to the declining psychological health among police professionals more broadly. Police often experience conflict between their personal identities and their professional identity. For example, female officers face intense pressure to match their male counterparts' performance while also managing the added strain of their intersecting identities, such as being women, mothers, and racial minorities (Workman-Stark, 2024). In general, police identity strain has worsened due to increasing social scrutiny, particularly in the media and since the police-involved death of George Floyd. Though some officers hide their police identities in public, distance themselves from officers accused of misconduct, or condemn public calls for defunding and reform, others address criticisms as opportunities for institutional change. Importantly, when organizations fail to support officers and foster harmful cultures that encourage aggressive policing, it leads to identity strain and poor well-being (Workman-Stark, 2024). Though better assessment, intervention, training and support are needed (Fleischmann & Lair, 2024); Workman-Stark, 2024), it is also important to address organizational stressors which can further exacerbate mental health challenges.

The impact of both operational and organizational stressors on serving police professionals' mental health becomes even clearer when examining the outcomes of police cadet training.

In one study, 16.7% of cadets in the RCMP Cadet Training Program report exposure to potentially psychologically traumatic events (Andrews et al., 2024). However, actions to combat this are being taken. After the implementation of mental health training as part of the program, there was a significant improvement in cadets' mental health. Cadets also reported better mental health at this time than serving RCMP members (Carleton et al., 2024). These findings suggest service-related stressors (operational and organizational) significantly impact officer mental health, but that training can have a positive impact.

Ultimately, there is a critical need for further evidence-based mental health and well-being programs for serving police (Andrews at el., 2024; Carleton et al., 2024; Fleischmann et al., 2024; Fleischmann & Lair, 2024; Sylven, 2024), which should also be integrated into cadet training and maintained throughout their careers (Andrews et al., 2024; Carleton et al., 2024).

In response to the policing community's mental health training and intervention needs, researchers from Canada and the USA have continued to study the effectiveness of various programs. Studies evaluating online (Fleischmann et al., 2024) and in-person (Sylven, 2024) meditation and mindfulness training for Canadian police professionals have found that these practices can reduce officer stress, improve mental health and well-being, and enhance decision-making. Mindfulness was also found to be an effective component of the blended Peace Officer Wellness, Empathy & Resilience (POWER) training program in the USA, which was shown to improve all first responder participants' physical, mental, emotional, and spiritual health (Basu & Seide, 2024).

Despite successful program outcomes in these studies, more research with larger sample sizes and diverse populations is needed to validate their findings on the effectiveness of such interventions, particularly online mindfulness training for police officers. Sylven (2024) specifically noted several challenges to implementation of in-person mindfulness and meditation training, including officer skepticism, lack of time, and organizational resistance. As noted above, organizational factors play a significant contributing role in police wellness. Successful integration of mindfulness and meditation training would thus require support from police leadership and a broader shift in organizational culture to prioritize wellness (Sylven, 2024).

Militarization and Use of Force

As public concern about police use of force continues to rise, researchers have sought to understand use of force decision-making and outcomes by studying the differences between tactical officers and patrol officers, and between male and female officers. Jenkins et al. (2024) found that tactical officers make quicker and more accurate decisions about when to use deadly force, generate higher quality response options resulting in fewer fatalities, and better anticipate future events than patrol officers. However, this study did not account for gender differences in use of force decision-making and outcomes between male and female officers.

In a nine-year study of officers from a large Canadian police force, Sheppard and colleagues (2024) found that male officers used force 66% more frequently than female officers. There were also differences in officers' choice of intervention types: female officers tended to use intermediate weapons like tasers and Oleoresin Capsicum (OC) spray (i.e., pepper spray), whereas their male

counterparts were more likely to use stuns or strikes, vascular neck restraints, and takedowns. One reason female officers had fewer use of force incidents may have been because they were more skilled in and likely to use de-escalation techniques compared to male officers. However, female officers also reported experiencing more injuries to themselves when using physical force or intermediate weapons than their male counterparts (Sheppard et al., 2024), thus suggesting the reason may relate more to personal safety rather than skill differences. Ultimately, the reasons behind differences in gendered use of force decision-making were inconclusive. It is important to consider these differences though as many services aim to increase recruitment of more gender diverse populations.

Patrol officers could benefit from tactical training to improve decision-making and outcomes in situations where use of force is likely to occur. For example, Jenkins et al. (2024) recommend leveraging scenario-based training methods, like the ShadowBox approach, which lets trainees take the point of view of tactical experts. While enhanced tactical training for patrol officers may improve use of force decision-making and outcomes, it is important that such training accounts for gender differences between officers, minimizing risk of injury to both officers and the public.

Community activist groups in Canada opposing police militarization have criticized the police for their use of force and military equipment, suggesting that it implies the police view the public as adversaries (Towns & Ricciardelli, 2024). The adoption of military-style equipment can end up romanticizing militarization and result in questions about police legitimacy and negative views by the public (Sidhu, 2024).

Towns et al., (2024) have noted that the public may interpret the deployment of Emergency Response Team officers to support regular patrol as an illegitimate use of police resources, when they do not perceive the call risk as high. However, the use of Emergency Response team members to assist patrol units has clear benefits in reducing fatal outcomes due to their increased training, expertise, and critical thinking skills (Jenkins et al., 2024; Towns et al., 2024). Essentially, police services are at an impasse whereby using Emergency Response Team resources can improve use of force incident outcomes, but risk damaging public perceptions of police legitimacy and increase concerns of militarization.

Some police leaders, like the former Commissioner of the RCMP and a Winnipeg Police Service representative, have voiced their concerns about militarization because of its potential to increase reliance on use of force, while also acknowledging that police should focus efforts on public education about police decision-making practices (Towns & Ricciardelli, 2024). Conversely, other police leaders, like those from Windsor Police and Former Defense Minister Bill Blair, have argued that using militaristic equipment like tactical armoured vehicles is necessary to ensure officer safety and adequately respond to calls for service (Towns & Ricciardelli, 2024). One proposed solution would be for Emergency Response Teams to transition from part-time to full-time operations and have standardized equipment across the country, ensuring consistency in training, skill development, and incident responses (Towns & Ricciardelli, 2024).

Calls for consistency in police deployment of Emergency Response Teams are supported by data showing significant variation in how police agencies define and report tactical deployments (Lair et al., 2024). For example, some deployments were only reported in instances of full-team

response and others in all cases, including single-officer responses. Importantly, this research found that contextual information was limited and did not account for weapon use but had risks that justified tactical team intervention (Lair et al., 2024).

Without standardized reporting practices, it is difficult for police and researchers alike to track and analyze use of force incidents and tactical deployments, including training and gender differences between officers. Given the implications of police militarization on public perceptions of police legitimacy, and the need to ensure officer safety and appropriate use of force, consistent reporting practices are key to developing evidence-informed tactical training for police services and public education tools to improve transparency and police-community relationships.

Social Media Impacts on Police-Public Relations

Social media and its impact on police-public relations has become a significant area of interest in policing research. In 2024, researchers focused on the targeting of police via social media in Canada (Huey & Ferguson, 2024; Huey et al., 2024) as well as the influence of social media on public perceptions of police (Dierenfeldt et al., 2024; Faury et al., 2024; Grutzpalk & Jarolimek, 2024; Succar et al., 2024; Zaidi & O'Connor, 2024).

Social media has become an effective tool to promote anti-police sentiments and police are increasingly targets of social media videos, particularly when they are intentionally provoked (Huey & Ferguson, 2024). Police professionals have reported feeling frustrated and intimidated by the possibility of being filmed and provoked and worrying about the psychological safety of their families, who could also be targeted (Huey & Ferguson, 2024).

The safety of Canadian police officers was particularly compromised during the Freedom Convoy protests due to doxxing, which refers to the public release of personal information for harassment, intimidation, threat, and/or humiliation (Huey et al., 2024). Information was leaked to pro-Convoy sympathizers and broadcast widely via social media platforms, leading to threats, operational challenges, and the potential for recruitment and retention issues (Huey et al., 2024).

Given the rapid growth of technologies and speed of communication, police cannot keep up and are often not equipped to manage social media or the spread of misinformation and doxxing (Huey & Ferguson, 2024). Police and their families are increasingly at risk of psychological, and potentially physical, harm due to doxxing. Beyond this, social media being used to spread false narratives and decontextualized information poses a significant threat to institutional legitimacy.

A comparative study analyzing comments on YouTube videos of police clearing homeless encampments found that public perceptions of police legitimacy were tied to the views of the individual. That is, if people viewed the encampments as legitimate, and had strong moral judgements about the homeless population being targeted, they were more likely to see the police's actions as unjust and/or illegitimate (Faury et al., 2024).

Moral judgements may also be used by the media to influence the public's perception of policing. While local crime reporting has no impact, American media has been found to have a significant negative influence on public sentiment (Succar et al., 2024). Indeed, research has shown that the public is significantly influenced by social media consumption and are likely to overestimate the

frequency of police use of deadly force and the involvement of people of colour, and underestimate the proportion of incidents that were legally justified and necessary (Dierenfeldt et al., 2024).

The topic of police legitimacy has created disagreement and polarization among social media users. This further highlights the need for police to receive training to minimize perceived violence and maintain public trust (Faury et al., 2024). A common thread in this research is the importance of explaining police actions and addressing concerns that may arise. Maintaining open lines of communication with the public can help promote police legitimacy and improve public perceptions of the police (Faury et al., 2024; Grutzpalk & Jarolimek, 2024). However, it is also important to understand police perspectives and challenges related to social media when developing training solutions and communication strategies for them.

In Canada, police have reported feeling like the community sees them as outsiders and this contributes to police-community conflict on social media (Zaidi & O'Connor, 2024). Police professionals highlighted three main strategies of managing their online interactions with the public: (1) ignoring negative comments and posts; (2) attempting to engage with legitimate concerns and providing public education; and (3) deleting and blocking negative posts while providing warnings and education resources (Zaidi & O'Connor, 2024). Police also explained that lack of resources, training and standardized policies on social media engagement, as well as internal resistance, have created significant organizational challenges in managing public relations and improving public perceptions of police.

There is thus a clear need for police training in media literacy and communications strategies, specifically to handle being filmed and photographed while presenting a professional public image, minimizing perceived violence, maintaining public trust (Faury et al., 2024; Grutzpalk & Jarolimek, 2024), as well as an organizational culture shift to support such initiatives (Zaidi & O'Connor, 2024). Training is also needed for officers to protect their personal information and manage doxxing situations and improve police communication. There is also a great need for resources to support officer mental health, and further research to study the impacts of doxxing and targeting on policing (Huey & Ferguson, 2024; Huey et al., 2024).

Technologies for Policing

Researchers in Canada and the USA have studied technologies such as artificial intelligence (AI), body-worn cameras, and virtual reality (VR) to examine their impacts on and effectiveness for policing.

Artificial intelligence (AI)

The integration of AI technologies into police operations has been a key topic of interest for academic researchers. Specifically, AI-assisted report-writing, AI for predictive policing and risk forecasting, and police use of facial recognition technologies.

Despite assumptions that the integration of AI technologies like large language models (LLMs) would lead to increased report-writing efficiency for police, some research has found the opposite. These studies showed that AI assistance did not significantly reduce the time officers spent writing

reports (Adams et al., 2024; Kaufman, 2024). They found that the nature of police report writing, with its extensive data entry and documentation requirements, may limit AI technology efficiency potential (Kaufman, 2024) and AI was not fully capable of the critical thinking required in police reporting (Adams et al., 2024). Ultimately, AI tools caused more disruptions and the need for human verification and correction in the workflow process. Time will tell if this remains true in the future, but at present, it seems that AI cannot adequately replace the need for human critical thinking abilities in this area. In general, officers are likely to need extensive training to effectively use AI tools (Adams et al., 2024). At the same time, police services must be mindful of potential ethical concerns and any impacts to vulnerable populations when using such technology (Kaufman, 2024).

Beyond creating reports, there has been large spread success in AI technologies for predictive policing with notable reductions in crime rates (Raji & Sholademi, 2024). However, some jurisdictions report issues of inaccuracy and outcomes of over-policing (Raji & Sholademi, 2024). Ontario Tech University researchers may have found a way to improve accuracy issues with their framework for using LLMs for crime prediction. These models showed superior performance in crime classification compared to traditional machine learning models (Sarzaeim et al., 2024). They also found techniques like zero-shot (asking an LLM to do a task it was not specifically trained for) and few-shot prompting (giving a small number of specific examples to the LLM to show it how to approach the task it is being asked to complete) enhanced the adaptability of LLMs for crime prediction. Further, training LLMs on specific crime datasets significantly improved their accuracy (Sarzaeim et al., 2024).

AI has also been found to be useful for 911 operators. LLMs integration into 911 call operations can provide real-time risk forecasting from live calls (Atherly, 2024). These findings suggest LLMs could make call triaging safer and more efficient, reducing unnecessary police involvement (Atherly, 2024).

Despite some proven effectiveness in AI use for predictive policing, further research is needed to improve the accuracy of these models (Sarzaeim et al., 2024). Researchers are also concerned about biases in machine learning and LLMs, which could potentially lead to discriminatory treatment of specific groups or individuals and over-policing (Atherly, 2024; Raji & Sholademi, 2024; Sarzaeim et al., 2024). To mitigate these risks, researchers advocate transparency, community engagement, and regulatory oversight for predictive policing technologies, emphasizing the importance of having ethical guidelines for their use (Raji & Sholademi, 2024).

Similarly, scholars have flagged ethical issues in police use of AI facial recognition technologies. For example, Toronto Police Service's (TPS) use of Clearview AI resulted in significant racial and gender biases, while its use of NEC NeoFace for investigations resulted in high inaccuracy rates (Sengupta, 2024). A major flagged issue was that facial recognition technologies were often trained on biased data, leading to discriminatory practices affecting marginalized communities (Jones & McKelvey, 2024).

In addition to the research findings on algorithmic bias, the Office of the Privacy Commissioner of Canada (OPCC) found Clearview AI's collection of social media images without user consent violated privacy laws (Shepherd, 2024). The investigation highlighted the importance of digital

literacy to understand and address threats posed by these types of technologies (Shepherd, 2024). Ensuring effective AI governance requires open and inclusive public consultations to address the privacy risks this technology may pose to citizens.

Ultimately, police services should approach AI technology integration with care, ensuring that comprehensive metrics are developed to evaluate any implementation and that close attention is paid to any possibility for tool and outcome biases or discriminatory practices. Police should also be sure to consult with subject-matter experts when developing these initiatives (Rector and Moffat, 2024). Establishing formal networks with universities and other partners to enhance scientific capabilities and address public safety challenges—while ensuring clear agreements and adherence to ethical standards—would also be of value (Rector and Moffat, 2024).

Body-worn cameras

Another big technology focus is around body-worn cameras. For example, research on the use of visual warnings (i.e., yellow stickers) on body-worn cameras found that officers equipped with these identifiers were more likely to use force than those without stickers (Assaraf et al., 2024). The visual warning of body-worn cameras appeared to increase instances of aggression and resistance from the public, contrary to the expected deterrent effect (Assaraf et al., 2024).

Researchers also found that body-worn cameras were limited in their field of view, only capturing 66.2% of critical incidents versus 80.5% captured by officers' eyes (Murray et al., 2024). Body-worn cameras often missed key events, such as people retrieving and firing weapons, whereas officers' head and eye movements provided broader perspectives because they are not affixed to the body (Murray et al., 2024).

This is especially relevant, given findings on the differences between civilian perceptions of events after watching body-worn camera footage versus the perceptions of officers who experienced the events in real-time (Pezdek's, 2024). Police officers remember more details, feel more threatened, and believe their use of force was justified compared to civilians who only watched body-worn camera footage (Pezdek, 2024). Given the impact of body-worn camera footage on public perceptions of police, the limited capture range of this technology could have ramifications for public confidence in police and perceived police legitimacy (Pezdek, 2024).

Further threatening public perceptions of police legitimacy in Canada could be the lack of consistency across police services using body-worn cameras. For example, Saulnier (2024) found discrepancies between federal, provincial, municipal, and First Nations police services on a variety of issues, namely: the time that is recorded by body-worn cameras, victim-sensitive practices, protocols following critical incidents, random supervisor reviews of footage, data storage procedures, footage audit trails, public disclosure requests, and proactively disclosing footage in public interest.

While police services in Canada may have refined their body-worn camera policies since Saulnier's (2024) survey was conducted in 2022, her findings indicate a clear need for national standardization on their use. American researchers have echoed these recommendations, emphasizing that training should promote procedural fairness and effective communication during police-civilian encounters to enhance transparency and reduce use of force occurrences (Assaraf,

2024). Training should also highlight the limitations of body-worn cameras and the importance of visual attention and decision-making processes (Murray et al., 2024). Finally, Pezdek (2024) has advocated for jury members to be educated about body-worn camera use and limitations, to bridge police and civilian perspectives about use of force incidents in the courtroom.

Virtual reality (VR)

The use of virtual reality (VR) for police training purposes was also a focus in the 2024 policing literature. For example, in one study, officers took part in a 10-minute VR scenario involving a mental health crisis while wearing sensors to track their stress levels (Muñoz et al., 2024). They used full VR gear, including headsets, motion trackers, and feedback belts that simulated physical contact. Their de-escalation skills were assessed during the session, and afterward, they filled out a survey about the experience.

Physiological monitoring technologies were particularly useful in providing information about officer stress responses and decision-making processes during virtual reality training (Muñoz et al., 2024). The authors found significant differences between officers' baseline and virtual reality scenario immersion heart rates and their heart rate variability, which indicated officers experienced heightened stress regulation during the simulation, like they would in live-action training. Interestingly, officers who managed stress well did not use many different de-escalation methods. Instead, they mainly used communication techniques like listening actively, speaking respectfully, and showing calm body language to resolve situations without force. This is compared to officers with lower stress management, who used more de-escalation strategies like distancing themselves from the person in crisis and drawing their weapons. These officers were also more likely to view mental health crises as dangerous, and the researchers suggested these views may have been supported by risk-based stereotypes about mental illness. Regardless of de-escalation differences, officers reported it was beneficial to monitor their own stress levels and know which physical responses were associated with successful de-escalation. Ultimately, Muñoz et al. (2024) concluded that full-body VR was an effective tool for improving training outcomes, particularly in stress management and de-escalation during mental health crises.

To promote the continued development and implementation of VR training in the public safety sector, American researchers have established a national cine-VR library for police training, along with a process for creating virtual reality content (Dhieb & Durado, 2024). This program advocates virtual reality as a cost-effective and safe method to teach police interpersonal and occupational skills. At the same time, they also note challenges in content creation such as complex camera setups to capture immersive content, finding engaging ways to tell stories and to leverage 360 videos, required technical expertise, effective team coordination, and time required to experiment with the technology (Dhieb & Durado, 2024).

While VR training for police appears promising, there are some that have reservations. For example, Dowler (2024) has argued that it is often seen as a solution to addressing police brutality but may be more about improving public image than making real changes. There is more evidence needed to address the effectiveness of training (Dowler, 2024).

VR training development should focus on immersive scenarios that closely mimic real-life situations (Muñoz et al., 2024). Such development would be benefited by assembling complementary teams of subject-matter experts to create content, maintaining communication and adaptability, and experimenting with different virtual reality techniques (Dhieb & Durado, 2024). Further, all VR training should be subject to rigorous, transparent research to evaluate its effectiveness (Dowler, 2024; Muñoz et al., 2024), particularly as training evolves using mixed and augmented reality. Finally, it is important that VR, or extended reality (XR) training more broadly, be implemented alongside other reform measures like policy changes and community engagement because the training alone is not enough to address the root causes of police misconduct (Dowler, 2024).

Conclusion

This literature review identifies four key themes in policing research with implications for training and professional development: mental health and wellness, militarization and use of force, social media impacts on police-public relations, and technologies for policing. These themes highlight the continuity of certain policing challenges, and the importance of advancing police professional development to support officers and meet public expectations. It is imperative that CPKN stay informed of developing trends in policing research to proactively identify implications and opportunities for police professional development, and to ensure that we remain the preferred provider for police and public safety training.

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