Journal of
COMMUNITY SAFETY & WELL-BEING

Foreword: Wellness is an enduring CSWB imperative

Norman E. Taylor, Editor-in-Chief*

During the recent Canadian Association of Chiefs of Police (CACP) Canadian Policing Wellness Check Conference in March, the Journal was represented with distinction in a capstone feature session. Panelists included Matthew Torigian (Senior Contributing Editor), Lauren Jackson (representing our Special Issue sponsor, Deloitte), Dr. Linna Tam-Seto and Dr. Jeff Thompson (Special Wellness Issue Guest Editors), and Dr. Katy Kamkar (Contributing Editor and CACP Research Advisory Committee Member). Together, they delivered a concise summary and rich discussion of the papers featured in our February special issue. In combination with this current issue of the Journal, we are punctuating but not ending our continuing focus on CSWB professionals' wellness that began over a year ago.

In this issue, there are four features that derive directly from that same conference, an event in which several other JCSWB contributors were also represented on the program. Notably, the Reid paper offers a thorough and expertly captured Record of Proceedings that will draw our full international readership into the powerful conversations and insights that took place over two days in Ottawa. Thompson takes us further into his continuing and expanding research built upon the Awe Project. Bauer introduces us to a promising new collaboration between the Journal and the Mental Health Commission of Canada (MHCC), and we look forward to future features aligned with our shared interests in mental health and wellness both inside all CSWB workplaces and in the communities they serve.

Contributing Editor Dr. Vivien Lee deftly leads off this issue with an effective transition piece, connecting our recent focus on mental health to our youth-oriented theme for the current year.

I would like to acknowledge and thank all our contributors and reviewers for their help in shining a bright light on the urgency of attending to the wellness of CSWB employees and for offering us all a renewed body of literature to point policy and practices in the right directions for the future.

Rounding out the current issue are Geisbrecht's meta-analysis on violence intervention programs, and the first two of several papers arising from the LEPH2023 Conference held in Umea, Sweden, in late May. Beginning with Addis and Snowdon and Nadine et al. in this issue, we look forward to welcoming our readers into another global event of great significance through the publication of many of the conference features, likely to span our next two issues of the JCSWB. Our thanks also to the Global Law Enforcement Public Health Association (GLEPHA) for continuing their work with us in this important knowledge-building partnership.

CONFLICT OF INTEREST DISCLOSURES

The author has continuing business interests that include providing advisory services to communities, police services and related human service agencies.

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EDITORIAL

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"Kids these Days": Understanding, then bridging the gap with emerging generations

Vivien Lee, PhD, C.Psych.*

When Editor-in-Chief Norm Taylor asked whether I would be interested in authoring the opening article for this special issue, *Issues Facing our Emerging Generations*, I leapt at the opportunity. Research on the impacts of trauma (e.g., abuse, neglect, community violence) in youth was my first research passion, starting with my undergraduate and graduate studies. How did experiencing trauma during development impact how a child perceives situations, regulates emotions and behaviour, or learns how to interact in social situations and interpersonal relationships? My interests over the past 15 years have continued in the realm of trauma, transitioning to cumulative operational stress trauma in public safety personnel. This year's focus for JCSWB weaves these multiple interests together in addition to other considerations when working with youth and emerging generations.

YOUTH IN A RAPIDLY CHANGING SOCIETY

The world in which youths today and over the past 20 years have grown up appears vastly different than the world in which many readers grew up. Technological changes have been exponential, we are surrounded by a 24/7 news cycle, social media is ubiquitous, there seems to be news of mass shootings in Western societies on a regular basis, we have recently emerged from a global pandemic, youths have lived through or seen their families experience financial recessions and mass job lay-offs, there have been increases in contract work relative to permanent employment, and concerns about housing affordability abound. All of these factors have contributed to relentlessly negative news, at times skewed perception and expectations, and major uncertainty about one's individual circumstances and our collective global future.

There has been increasing awareness over the past several decades about the potentially long-lasting impacts of adverse childhood experiences and other traumatic experiences on childhood and adolescent development, including biological, neuropsychological, cognitive, emotional, interpersonal, and social impacts. Equity and inclusiveness in education may be fostered by considering these impacts and tailoring educational and psychological interventions to individual youths. Understanding how an individual young person has come to act in maladaptive ways or engage in illegal activity and what current individual and contextual factors help to maintain these behaviours is key to addressing cause(s) and target interventions.

Social media and instant access to the worldwide web for many youths has greatly expanded access to vast amounts of knowledge, opportunities to find niche communities welcoming of individual differences, the ability to foster connections with friends and family outside of one's local community, and the means to learn just about any skill that one is interested in. However, this easy access to all types of material and global communities can also have detrimental and sometimes dangerous impacts. Exposure to carefully curated social media content can foster distorted perceptions and unrealistic standards in comparing ourselves and our circumstances to others. News and social media algorithms work on numbers of views and "clicks," which can amplify negative news and inundate users with toxic commentary. Predators can target vulnerable individuals financially, physically, emotionally, and sexually. Many individuals find it difficult to limit their internet consumption and delay gratification.

What has been the impact of these massive changes in a relatively short period of time on our youth growing up throughout this era? We are still learning, and the full long-term impacts may not be understood for some time. What is clear however, is that the traditional way of doing things in arenas such as education, treatment, hiring, and employment require significant changes in order to work effectively with our youth and young adults.

RECRUITMENT AND RETENTION

The COVID-19 pandemic resulted in many people suddenly working from home for the first time. Since COVID-19 restrictions have begun to lift, many employers have had difficulty recruiting new employees, particularly in front-line positions that offer little or no possibility of remote or hybrid work. Individuals, particularly those of younger generations, appear to have different priorities and motivations from their parents', and they have learned that they have more options through remote work and upgrading their education and skills online. Emerging generations in particular appear to be motivated by the idea of a healthy work–life balance and what they perceive to be meaningful, fulfilling work. They do not appear to be

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as enticed by pensions, many having seen their parents and other adults laid off after many years of loyal work, shaking their confidence that pensions will be available when they retire 30 years later.

Public safety professions are among those that currently face recruitment challenges, not only due to the aforementioned reasons but, in particular, due to the police-involved death of George Floyd in 2020 and other police-involved incidents that have been amplified in the media. There have been significantly negative perceptions of policing in the last few years, making it less appealing to emerging youth as a career option.

Even when organizations are able to recruit new employees, retention can be a challenge. Transitions between employers and even careers are becoming more common with younger generations. They are entering adulthood with greater awareness and knowledge of emotional and psychological health and expectations of support from their employers. They may expect more values-based leadership and processes. Inclusion and equity are no longer optional. With the increased prevalence of remote or hybrid work, fostering virtual communities within the workplace is a new challenge for many employers.

RESISTANCE IS FUTILE: MEETING YOUTH WHERE THEY ARE AT

This is an exciting time for our emerging generations, with the ability to access knowledge, opportunities, and communities around the globe from the convenience of their homes. Previously taboo topics such as mental health and trauma are widely discussed, including in schools and workplaces. We are understanding more each year about the neuropsychological effects of trauma and we are only just beginning to research the impact of constant technological connectivity on the developing brain. To understand how to support, help develop, recruit, and retain emerging generations is crucial as major differences in technological skills, communication, and support expectations collide between generations in the workplace. "They don't jump in to help like we used to" and "they're not as resilient as we were" are fairly common refrains in some workplaces.

Understanding the mindset of younger generations is key to adapting to a new type of workforce. Rather than refusing to be team players, are they instead communicating clear boundaries to maintain a work–life balance? Are they actually less resilient or are they communicating more openly about their thoughts and needs? Accepting and understanding the different experiences and thought processes of our emerging generations is a crucial first step in adapting and moving forward. We may not understand how they think. Their expectations and needs might make us uncomfortable. Conflict between generations is a tale as old as time. What helps us to progress is accepting that things are different, that the "old way" is not necessarily the "right way," and that while our experiences may be different, the mindset and experiences of emerging generations are equally valid.

Dr. Carl Rogers had a profound impact on the practice of psychotherapy with his humanistic approach to psychology. He stated that, "the curious paradox is that when I accept myself just as I am, then I change." I would like to offer an adaptation of Dr. Rogers's quote and suggest that, when we accept that our emerging generations may have different mindsets and methods of communicating, then our understanding of and relationships with them can begin to change. Only then can we progress forward together.

CONFLICT OF INTEREST DISCLOSURES

The author has no conflicts of interest to declare.

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RECORD OF PROCEEDINGS

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Canadian policing wellness check conference 2023

Justine Reid*

ABSTRACT

Across the globe, leaders in policing are increasingly recognizing the urgency and significance of addressing the health and wellness of law enforcement personnel as concerning trends related to the mental health of officers continue to grow. Emerging from three years of some of the most challenging circumstances that Canadian policing has faced, and over five years since the last national check-in, the Canadian Association of Chiefs of Police (CACP) designed the 2023 Canadian Policing Wellness Check Conference to bring about a renewed sense of focus to the wellness of the policing community. Organized by the CACP and moderated by esteemed advisor and educator Norm Taylor, the conference brought together 176 delegates, speakers, sponsors, and leaders from the international and national policing and mental health communities for an inspiring, fast-paced two-day conference at the Fairmont Château Laurier in Ottawa, Ontario, on March 7 and 8, 2023. The following paper provides a comprehensive report on the proceedings.

Key Words Police mental health; police leadership; post-traumatic stress; workplace mental health.

SETTING THE STAGE

The sworn and civilian employees who comprise the Canadian police and related community safety and well-being (CSWB) sectors are slowly emerging from a three-year period unlike any other in their collective experience. While all Canadians also experienced the dual challenges of a global pandemic amid the heightened prominence of long-standing social equity issues, all human service providers had the additional challenge of continuing to serve others under uniquely demanding conditions at work and at home. In addition, during this same period, perhaps more than any other public service sector, policing has faced a steep increase in public and media scrutiny, many volatile and high-profile circumstances, and a perceived erosion of already fragile trust with many communities and interests.

The mental health and general wellness issues facing police were already the subject of considerable and rapidly growing attention prior to 2020. The Canadian Association of Chiefs of Police (CACP) hosted two national conferences on these issues in 2015 and 2017. Each of these events led to notable advances in the national awareness and study of police employee wellness and related expanded programming.

The full effect of this recent period upon the sector and its employees remains highly anecdotal at this stage. However, it is safe to assume that the momentum behind many promising initiatives has been affected to a considerable degree, while the underlying conditions have worsened to acute levels. Staffing gaps, degraded workplace morale, work–life balance challenges, and general health conditions have combined with unprecedented levels of fatigue, anxiety, and other mental health conditions to place all employees at a heightened risk, while the sector itself also faces existential challenges in terms of the public trust that is essential to the Canadian policing model.

2023 OBJECTIVES, GOALS AND STRUCTURE

Wellness checks are not an unfamiliar concept in the policing community, at least not as they relate to checking in on the health and well-being of community members as a common part of the job. What is less familiar, however, is the application of a similar internal check on the individuals who regularly conduct these checks on others. Acknowledging the need to turn wellness checks inwards on the policing community, the objective of the 2023 CACP Conference was to do just that—check in on the well-being of Canadian law enforcement personnel following an emotionally and physically taxing three years of frontline pandemic response, heightened media scrutiny, alarming levels of violent incidents against police, and perceived eroded trust in communities, and focus the conversation inward on what must be done to protect those who dedicate their lives to protecting our communities.

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As provided in the conference program, the overarching goal of the 2023 Policing Wellness Check Conference was as follows: to establish a renewed national baseline upon which to build continued developments in the policies, practices, and knowledge bases for improving mental health and general wellness outcomes for police service employees, their families, and their CSWB partners; to examine and remedy inequities experienced in wellness outcomes and available services; to restore momentum to the most promising prior initiatives; and to highlight and advance innovative forward strategies based on new lessons learned.

Additional stated objectives were to:

1) Share new quantitative and/or qualitative insights into the direct and varied impacts of 2020–2022 upon the wellness conditions facing Canadian police employees and their key CSWB partners.
2) Examine the nature and experience of these impacts to determine inequities in the impacts themselves, as well as in the supports, remedies, and access available to all employees across the system, and to devise appropriate action plans to address evident disparities.
3) Showcase, examine, and advance recently emerging and promising policies, practices, and knowledge models for others to apply.
4) Determine new and existing gaps in the policies, practices, and knowledge base surrounding police employee (and family) wellness, and potential solutions to address these gaps.
5) Develop a shared plan for both urgent and longer-term actions among key partners, including police agencies, CACP standing committees, associations, governments, health and mental health providers, and researchers.

To achieve these objectives, the conference drew on knowledge from the broad sectors of policing, mental health, occupational health, human resources, policy, and research to form the following ten sessions:

- Session 1: CACP Standing Committee Perspectives: The Current State of Wellness in the Canadian Policing Sector – What We Know, What We're Seeing, What We're Doing & What More Needs to be Done
- Session 2: The Wellness Journey in the United Kingdom – Oscar Kilo
- Session 3: Managing the Wellness Impact on Police Capacity – Case Studies in Successful Return-to-Work Strategies
- Session 4: Using the National Standard for Psychological Health and Safety in the Workplace to Advance the Wellness Culture in Policing
- Session 5: Showcase Sessions – Emerging and Promising Practices in Police Wellness
- Session 6: Deconstructing Impacts & Responqses to Tragic Experiences in Policing – Three Case Studies
- Session 7: RCMP Longitudinal PTSD Study – Project Design & Initial Results
- Session 8: Caring for Those who Protect Us – Exploring Best Practices and Interventions for Police Psychological Support after a Potentially Traumatic Event
- Session 9: Updating the Evidence to Support Police Wellness in an Environment of New Challenges
- Session 10: Town Hall Session – Resetting the Baseline and Looking Forward to an Equitable Culture of Wellness in Canadian Policing

SESSION SUMMARIES

Day One: Laying the Groundwork

Following reflections and an opening prayer delivered by Monique Manatch, Anishinaabe Algonquin Knowledge Keeper and member of the Algonquins of Barriere Lake, a sense of hope, commitment, and obligation was evident throughout the room as day one of the conference began. Taking to the stage for opening remarks, Chief Danny Smyth of the Winnipeg Police Service, and President of the CACP, welcomed participants and reflected on the challenges experienced by the policing community and the broader society over the last three years. He acknowledged the context of eroding public trust and deterioration within the sector and spoke candidly about the many internal pressures that services are collectively facing. Setting the tone for the next two days, he had a clear message for those in attendance: this year's event is about healing, restoring focus, and bringing about a renewed sense of hope to restore wellness among those who put their lives on the line to serve and protect. It is about a path forward.

Echoing those sentiments, Karla Thorpe, Vice President of External Affairs and Development at the Mental Health Commission of Canada (MHCC), underscored how tirelessly officers have worked over the last few years, all while directly in harm's way during the pandemic. Though significant strides have been made to address mental health stigma within the policing community, she acknowledged that many continue to suffer in silence and ongoing work is needed to address the unique challenges at play for officers. She pointed out that the MHCC is working hard to raise awareness and promote mental health in first responder settings through initiatives like The Working Mind and Mental Health First Aid, and called on those in attendance to approach this year's event with an openness and a willingness to learn.

Session 1: CACP Standing Committee Perspectives: The Current State of Wellness in the Canadian Policing Sector—What We Know, What We're Seeing, What We're Doing & What More Needs to be Done

Turning to members from three of the CACP's standing committees, the first session laid the groundwork for the next two days by bringing attention to the current state of wellness in Canadian policing. Dr. Kyle Handley, Staff Psychologist at York Regional Police Service and Chair of the CACP Psychological Services Committee, opened, noting how the focus of mental health and well-being in Canadian policing has experienced a period of tremendous growth and innovation in response to current issues in policing since these conversations began in 2013. With this rapid growth, however, the sector has also seen a rapid increase in the demand for training, programs, and services, leading to a gap in the current evidence base to support officers. Defining a path forward for wellness in Canadian policing and reshaping the culture around wellness

requires inclusive and innovative approaches to current issues and challenging long-held beliefs. Showcasing the York Regional Police Wellness Centre, a first of its kind police-run service in Canada, Dr. Handley explained the need for eliminating barriers for officers accessing care and operating a consistent system of support, and the importance of aligning federal and provincial services to better support members of the policing community.

Focusing on the aspect of prevention, Dr. Vivien Lee, Chief Psychologist and Commander with the Healthy Workplace Team at the Ontario Provincial Police and member of the CACP Psychological Services Committee, spoke to the need to prioritize and address the root causes of mental health and wellness in the workplace. Drawing from her experience of overseeing the implementation of the Ontario Provincial Police's (OPP's) Healthy Workplace Teams, Dr. Lee spoke to the importance of providing supervisors, managers, and senior leadership with training to promote the implementation of the National Standard for Psychological Health and Safety in the Workplace to advance the wellness culture in policing. Referring to a culture of secrecy and stigma around talking about mental health that is known all too well in the policing community, she emphasized the need for organizations to be proactive in addressing the causes of poor mental health outcomes and to ensure that early intervention is a priority of organizational wellness programs. Instead of only seeing people when they are having a tough time, she would like to see a shift to where clinicians and leaders are involved in the day-to-day aspects of policing wellness and seen as a resource to help make every day better and healthier, not just the bad days.

In the next presentation, Deputy Chief Lucie Tremblay of the Via Rail Canada Police Service and Co-Chair of the CACP Human Resources & Learning Committee presented on the mandate and focus of the recently formed CACP standing committee and provided insight into some of the key emerging issues that the team is turning their attention to. Key topics on the committee's radar include competency-based management, cyber-crime training and awareness, and policing wellness and mental health. She invited police agencies to take advantage of the event, to ask questions, and to bring lessons learned back to their respective organizations surrounding best practices in policing wellness to keep the momentum going.

Joining Deputy Chief Tremblay to speak about the results of the Human Resources & Learning Committee's 2022 strategic planning sessions, Director General Jennifer Richens of the RCMP, and Co-Chair of the committee, provided an overview of the committee's action plan and how they are working to further refine their strategy based on identified best practices. She explained that they are striving to promote a culture of active inquiry and identified key priorities for the committee, including identifying increased opportunities for training and learning, enhancing employee wellness in the workplace, and addressing current challenges related to recruitment and retention. These priorities will form the basis of the committee's work until 2025, with desired outcomes resulting in the development of stronger peer networks for officers, a decline in grievances and sick leave, and the development of a collective path forward. She, too, echoed the sentiments that policing leaders must work together to find solutions to enhance well-being and address the need to bring the next generation of officers to recruitment fairs.

Next, attendees heard from Alicia Lauzon, Equity and Inclusion Specialist with York Regional Police Service and member of the CACP Equity, Diversity & Inclusion (EDI) Committee, as she spoke of the value of fostering an inclusive workplace. Stemming from the 2018 CACP Executive Global Studies Program Report, the EDI committee was formed in response to a call to action for a national inclusion working group to: challenge and change our assimilative policing culture, widen all pathways to talent, and engage in courageous leadership. Referencing a Catalyst study of over 700 Canadian participants, she discussed the concept of "emotional tax"—the combination of feeling different from peers at work because of gender, race, and/or ethnicity, and being on guard to experiences of bias—and the associated effects on health, well-being, and the ability to thrive at work. She shared that not only are staff who are experiencing emotional tax more likely to consider leaving their jobs, but these patterns of behaviour and a perceived need to assimilate into the police culture may also lead to significant psychological injuries for members. She emphasized that to improve well-being in the workplace, EDI needs to be a top priority for leaders and integrated into everything the organization does, noting that someone who feels included and feels that they belong in the workplace is someone who is well.

Session 2: The Wellness Journey in the United Kingdom—Oscar Kilo

Stepping out of the Canadian context for the next session, guest speaker Andy Rhodes, Service Director of Oscar Kilo, the National Police Well-Being Service (NPWS) in the United Kingdom, took to the floor to share his experience of the policing wellness journey across the pond. Growing from a small working group in 2016, Oscar Kilo is a first-of-its kind service developed by police for police to address the diverse needs of those working in law enforcement. Through a range of specialized and unique services, including the deployment of wellness vans that provide outreach services to officers directly at their workplace, along with extensive research and data collection initiatives, Oscar Kilo seeks to equip police organizations with the support and guidance needed to improve and maintain employee well-being.

Referencing findings from Oscar Kilo's latest research activities, in which input from over 36,000 officers was received through a national survey, Rhodes highlighted that the transactional side of the job is very rarely where issues occur. Instead, it is the emotional toll of policing culture and hindrance stressors (i.e., the organizational factors) that are driving negative outcomes in this line of work. The good news, however, is that the data shows that most of these stressors are things that can be addressed. To effectively do so, he underscored that interventions must acknowledge the complex relationships between individual and organizational responsibility. No intervention will survive contact with policing culture if it is not engaged at the forefront of the culture with the leaders. Before organizations can start to build in effective well-being support, building trust amongst staff and senior leadership is vital. Oscar Kilo helps organizations do this critical work through its Blue Light Wellbeing Framework, which he urged leaders to explore.

Speaking to additional research objectives, he presented work undertaken by Oscar Kilo to track the relationship between types of policing roles and the impact of potentially traumatic events on officers' mental health—noting that while we are great at keeping records of physical health exposures (e.g., falls and fractures) in policing, something similar is not in place for psychological health exposures. He pointed to the value of data that can be collected via wearable technology that records users' biometric information, demonstrating how it has the potential to significantly alter the game for policing wellness research by providing opportunities to measure stress responses following exposure to a potentially traumatic event. Lastly, acknowledging how policing wellness work cannot be done in silos, he provided an overview of the recently enacted *Police Covenant*, a critical piece of UK legislation that brings into law the commitment to support the mental health and well-being of officers, staff, and their families.

When asked by session moderator Grant Edwards, Retired Commander of the Australian Federal Police, what he saw as the critical challenges needing to be addressed in policing, he spoke to the issues of high turnover rates, and improving diversity and inclusion within services, particularly when it comes to gender and addressing varying health needs. He underscored the value that can be gained from listening to staff voices, emphasizing that this is something that organizations can do for free, and challenged leaders in the room to not overlook the significance of employee engagement.

Session 3: Managing the Wellness Impact on Police Capacity—Case Studies in Successful Return-to-Work Strategies

Beginning the session on successful return-to-work strategies was Chief Paul VandeGraaf of the Cobourg Police Service. Speaking of his personal investment in improving policing wellness, Chief VandeGraaf outlined the changing nature of policing and the compelling fact that there is not a single person serving today who has not managed an operational stress injury. Urging that this cycle must be changed, while acknowledging that some level of harm is almost inevitable in this line of work, he challenged attendees to think critically about what is being done to protect the next generation of officers entering the profession. He emphasized the need to engage with and learn from staff who are off work and cautioned about the impacts of being blind to the system that people face when they return to work. Outlining the steps that need to be taken moving forward, he stressed the importance of early intervention and providing meaningful work that is informed by an employee's interests when they return to the job. His insightful presentation concluded with the observation that we cannot continue to recruit people and break them. To support staff in returning to work, we must paint a vision of growth and ability, not restrictions.

The second half of the session was led by Dr. Katy Kamkar, Clinical Psychologist at the Centre for Addiction and Mental Health (CAMH) and Assistant Professor in the Department of Psychiatry with the Temerty Faculty of Medicine at the University of Toronto. Referencing current literature on disability management, return to work, and inclusive leadership, Dr. Kamkar discussed the significant impact that organizational stressors can have on an individual's mental health and well-being, and the benefit of collaborative care models in helping employees return to work following a mental health–related absence. She pointed to the significant rising costs associated with presenteeism and sub-optimal performance as a result of occupational stressors, in addition to rising mental health needs and absenteeism costs. She drew attention to the importance of building resiliency at both the individual and organizational level, and the need for a systemic, holistic, and whole-of-person approach to return-to-work strategies. What used to be an administrative back-to-work perspective, Dr. Kamkar noted, is now being transformed into a collaborative care model. To minimize the risk of moral distress, optimize the prognosis for recovery, and effectively return employees to work, approaches must operate under a continual care pathway and prioritize meaningful work, gradual returns, and continuous training to help employees regain their capacity.

Session 4: Using the National Standard for Psychological Health and Safety in the Workplace to Advance the Wellness Culture in Policing

Building on the theme of occupational health and well-being, the next session featured presentations on the National Standard for Psychological Health and Safety in the Workplace by Karla Thorpe, Vice President of External Affairs and Development at MHCC, and Lauren Bernardi, Lawyer and Human Resource Advisor with Bernardi Human Resource Law.

Speaking to a renewed focus on workplace mental health at the MHCC, Thorpe opened the session with an overview of the National Standard for Psychological Health and Safety in the Workplace (the "Standard"). Designed to help promote mental health and prevent psychological harm at work, the Standard provides a framework to assist organizations in advancing workplace mental health by aiming to reduce stigma, recognize the signs and symptoms of mental illness, and educate management on the impacts of trauma and stress at work. Acknowledging the profound impact that the COVID-19 pandemic has had on the Canadian population, especially among frontline workers and those who are marginalized, Karla spoke about how these challenges led to targeted work on sector-specific mental health resources and trauma-informed resiliency initiatives, including resources for police and first responders. The key to successful implementation of the Standard in your workplace, she said, is identifying a set of champions who can help drive positive change.

Next, Lauren Bernardi, trained in law and human resources, walked the audience through the 13 psychosocial factors for psychological health and safety in the workplace and applying the Standard to the policing workforce and culture. Referring to the factors as a collection of organizational, job-related, and interpersonal elements, Lauren singled out how civility and respect, on the one hand, and clear leadership and expectations, on the other, are the two factors they encounter as challenges most often across organizations, especially regarding the current state of workplace bullying and harassment present in policing. She discussed the presence of an overwhelming fight instead of a collective approach to adjust this culture and cautioned about the harms of not paying attention to micro-incivilities until they become serious issues. Lauren urged policing leaders to "sweat the small stuff" and to set the standards for acceptable (and unacceptable) behaviour in their services. Ending with a quote from Hermes

Trismegistus, "as above, so below, as within, so without…," she underscored how actions at the top of an organization among supervisors and leaders have the power to be translated into group change within the workplace.

Following the presentations, the floor was opened to the audience, who supplemented the conversation with their own questions, comments, and perspectives stemming from the content. This led to discussions around what it means to be an authentic leader, the value of reviewing internal policies for implicit biases and inequities that may be present, and a broader conversation about the need to build awareness within policing leadership to better prepare officers for the psychological demands of the job and support in this area. The key takeaway: there are no winners and losers in authentic inclusion. Transforming workplace culture is complex, but a sustained and collective effort can lead to positive change.

Session 5: Showcase Sessions—Emerging and Promising Practices in Police Wellness

Shifting the pace of the addresses, the final session of day one consisted of five 20-minute presentations on a variety of topics relating to emerging and promising practices in police wellness. From learning about the power of awe and sleep, to encouraging case studies from the MHCC, Lethbridge Police Service, and the RCMP, there was no shortage of information and lessons learned to be gleaned from the afternoon showcase sessions.

The Awe Project for Resilience

Combining high impact with some well-received levity at the end of an action-packed first day, Dr. Jeff Thompson, Research Scientist in the Department of Psychiatry at Columbia University and Retired NYPD Detective, captivated the audience with his presentation on "Leadership & Awe." Defining awe as "a complex emotion that captivates a person in the presence of something or someone extraordinary and challenges their thinking," he spoke of the emotion as a gateway to other resilience practices. In his address, he outlined the many potential benefits of experiencing awe, all of which are backed by extensive research that was cited throughout his presentation. By encouraging delegates to think about moments when they experienced awe in their lives, he demonstrated that awe can be experienced in a variety of ways and that it is something that we all have access to at any time, in any place. Acknowledging that it is not a silver bullet to fix the challenges of policing, he described awe as a powerful tool that can be used alongside other evidence-based resilience practices to shift our perspectives of how we respond to challenging situations. He stressed that there is no finish line to the work that we do and that the best way to motivate your workforce is to show them that you are doing your best. Positivity is something that we need to make space for and make a priority within our services, because if you do not make time for the good, there is no balance during the bad. For more information about The Awe Project, visit 5daysofawe.com.

The Role of Sleep

Next, Dr. Philippe Stenstrom, Scientific Director and Co-Founder of HALEO Clinic, and Julien Heon, Vice-President of Growth and Client Success at HALEO, provided an informative presentation on the importance of sleep in maintaining physical and mental wellness. Recognizing the high correlation between sleep and the current challenges that police services are facing, HALEO has shifted focus to the policing sector to help services better understand the impact of sleep on officers' job performance, wellness, and safety. They highlighted how quality sleep is especially important in policing given the nature of rotating shiftwork and the frequent exposure to stressful and potentially traumatic events. If left untreated, poor-quality sleep and chronic insomnia can lead to impaired cognitive functioning and loss of productivity for officers, as well as increased risks of developing anxiety, depression, and addiction disorders. Speaking to the latest research and strategies for improving sleep, they shared promising findings from their Cognitive Behavioural Therapy for Insomnia (CBT-I) program, which was recently adapted for law enforcement. Collaborating with the Montreal Police Department, they found that officers who participated in the program reported lower medication use, lower anxiety, and lower suicidal ideation. A benefit of CBT-I, they shared, was that it can help address mental health symptoms, even if the individual is not yet willing to speak about them.

MHCC Innovative Cross-Over Case Studies from First Responders

In the third showcase session, Dr. Julie MacMillan-Devlin brought attention to the critical role that policing leaders play when it comes to ensuring the well-being of their staff. Building on the content presented earlier in the day by Karla Thorpe and Lauren Bernardi, Dr. MacMillan-Devlin provided an overview of the MHCC's The Working Mind First Responders (TWMFR) program, an adaption of the original The Working Mind course designed specifically for first responders and public safety personnel. She spoke to the challenges of reducing stigma in policing culture, noting how there is still a prevailing fear of saying or doing the wrong thing when talking about mental health. To help address this, she suggests demystifying the conversation and shifting the focus to what *keeps you healthy* versus what makes you sick. She mentioned the significance of leading by example and modelling positive coping strategies by having regular check-ins and conversations with staff—during both the good and the bad times of policing, she stressed. She encouraged policing leaders in attendance to start, if they are going to do any mental health training, with The Working Mind training and urged leaders to be brave and willing to start the conversations on wellness within their services.

Hands-On Wellness Leadership: A Case Study

For sustainable change to occur within the policing culture, leaders must play an active and visible role in their organizations to create an environment where staff feel safe, supported, and valued. Speaking about how this can be achieved, Chief Shahin Mehdizadeh of the Lethbridge Police Service provided an inspiring presentation on the steps he took as Chief of Police to increase organizational wellness and his experience as the first service in Canada to implement the Active Bystander in Law Enforcement (ABLE) training. Chief Mehdizadeh joined the Lethbridge Police Service in September 2020, and he spoke to the value of making connections with all employees, addressing issues of the past, and looking to the future with confidence and pride in your team. He highlighted the

significance of employee-driven initiatives and underscored that an organization's most important asset is its people, including the families of officers. As he shared the findings from the service's latest employee survey and improvements were seen across the board in satisfaction and engagement, the impacts of these efforts were evident.

RCMP Periodic Psychological Health Screening Project

In the final showcase session, Dr. Norman Shields, RCMP National Chief Psychologist, provided a high-level overview of the RCMP's Psychological Health Screening Program (PHSP) and lessons that can be learned from its implementation. With increasing empirical literature highlighting the prevalence of mental health conditions among public safety personnel, the PHSP began in 2021 as a proactive approach to protect the psychological well-being of RCMP members. Through a series of psychological health screening questions and semi-structured interviews, Dr. Shields explained that the PHSP enables the psychologist and member to engage in a member-centred constructive conversation about their psychological health and well-being and identify opportunities for early intervention in the event of a traumatic exposure. The hope is that administering the PHSP to all members will help reduce stigma around seeking mental health support. It is important to note that, given that policing is an inherently stressful and hazardous occupation, the PHSP operates under a secondary prevention model that assumes that mental health conditions are likely the rule, and not the exception. Dr. Shields stressed that workplaces and wellness programs need to reflect this assumption, and that programs must be designed to support all members from the outset.

Day Two: Leading Evidence-Informed Action

Following a content-heavy first day, day two of the Policing Wellness Check was a stark reminder of the inherent risk that is present within the profession. Diving into the darker side of this line of work, the presentations from the second day brought into focus the content of day one and signaled the urgent need among leaders to act to protect those who are dedicating their careers to a potentially traumatic and injurious line of work.

Before commencing the second round of presentations, conference moderator Norm Taylor led the audience through a recap on the content from the previous day, encouraging delegates to reflect on some of the themes and action areas that were starting to emerge. What stemmed from the reflection were themes of courageous and authentic leadership (not being positional or authoritative), the value of individual and personalized approaches to wellness, the complexity of the profession and how it has evolved, and the acknowledgement that a generational change is long overdue.

Session 6: Deconstructing Impacts & Responses to Tragic Experiences in Policing—Three Case Studies

Pivoting to where the rubber hits the road, the opening session of day two took a somber tone as the Chiefs of Police from the Saanich Police Department, Burnaby RCMP, and Halifax Regional Police candidly recounted the tragic incidents that their services had experienced in the last two years. Vulnerable insights into the impact, response, and aftermath of each of the events were shared, including reflections on how the speakers attended to the critical needs of their officers, staff, and communities. The session was moderated by Australian Federal Police Commander (Retired) Grant Edwards and was designed for delegates to take stock at how these situations inform policing wellness work and how we can learn from them. A common key message from each of the presentations was the criticality of the human element of being a leader, and the power of showing vulnerability.

Multi-Casualty Bank Robbery Trauma

Starting with an event that occurred more than 4,700 kilometers across the country on Vancouver Island, Chief Constable Dean Duthie of the Saanich Police Department began the session with a recap of the multi-casualty shooting and hostage trauma that occurred in Saanich, British Columbia, on June 28, 2022. Recounting the events of the morning in which six members of the Greater Victoria Emergency Response Team (GVERT) were shot and injured during a shootout with two heavily armed suspects, Chief Duthie spoke to the investigative finding that the suspects' primary objective was to "shoot and kill officers," and how this has since reverberated through Saanich and the national policing community. Speaking to the immediate aftermath of the situation, he highlighted the importance of several actions, including taking a team approach to reduce the demand on individual officers, embedding mental health and support services directly within the unit, and identifying a family liaison officer to support staff and their families. He noted how easy it is for senior leadership to not prioritize their own mental well-being during traumatic events and stressed that in order to check in on others, you must be aware also of how you are doing. Reflecting on the weight of being present and personally attending to staff, his poignant presentation concluded with the following remark: "No one cares how much you know, until they know how much you care."

RCMP Burnaby Outreach Tragedy

In the next presentation, Chief Superintendent Graham de la Gorgendière of the Burnaby RCMP delivered a moving presentation in memory of Constable Shaelyn Yang, an officer on the Police Mental Health Outreach Team who was fatally stabbed while responding to an outreach call in Broadview Park, Burnaby, British Columbia. Recalling the immediate steps that his team took to support staff following the tragic events of October 18, 2022, Chief de la Gorgendière underscored the value of ongoing and free-flowing communication with staff, quickly setting up supports for employees and Constable Yang's family and balancing the need for continuity of operations alongside ensuring that staff were provided with time to process the impact of the incident. Describing the all-hands-on-deck approach that was taken for ensuring the care of staff, he explained that dedicated wellness spaces were created for employees to gather in and provide support to one another and a great deal of effort was devoted to identifying those who may need extra support. Like Chief Duthie, he spoke to the need to expect the unexpected and acknowledged that leaders must be prepared to support staff over the long term as emotions and reactions will ebb and flow in the aftermath of a tragedy.

Following his presentation, moderator Grant Edwards commended Chief de la Gorgendière for the vulnerability that

he showed in the aftermath of this tragedy. Showing emotions and being vulnerable has a profound, vicarious, and moral impact on staff, he said, and is something that the profession has largely failed to adopt and has resisted to a fault.

Mass Casualty Impacts on Police

On April 18, 2020, during the height of the first wave of the COVID-19 pandemic, Canada's deadliest mass shooting began in the small rural community of Portapique, Nova Scotia. Spanning a 13-hour period, a total of 22 people, including Constable Heidi Stevenson and an unborn child, were killed by a single gunman posing as a police officer, while an additional three people were injured. Addressing the events and aftermath of April 18 and 19, 2022, was Chief Dan Kinsella of the Halifax Regional Police Service. Following an overview of the timeline of events, Chief Kinsella provided an account of the far-reaching impacts that this incident had on the law enforcement community. While the physical impacts of the incident were unimaginable, the emotional impact and the effect on the mental health of all those who were involved were substantial. Attuned to the accumulated grief that officers were feeling as a result of multiple traumatic events impacting the province and law enforcement simultaneously, he explained how vital it was for senior leadership to be visibly present to staff and to develop programs to help one another over the long term. He detailed the sharpened focus on first responder, victim, and family wellness that emerged following the incident, and noted the profound impact that seemingly small measures can have when it comes to providing support in the wake of tragedy.

Before bringing the session to a close, the audience had a chance to hear briefly from Ivy Nanayakkara, Manager of the Wellness Unit at Toronto Police Service, and the support provided by the Unit following the death of Constable Andrew Hong in September 2022. Nanayakkara emphasized the critical role that peer support teams play in supporting staff wellness, and shared how immediate supports for staff just entering their policing career are urgently needed to address the declining number of people interested in pursuing a career in policing.

Moderator Grant Edwards drew the session to a close by validating the huge step forward that has been taken by acknowledging and deconstructing these awful moments, sharing lessons learned, and engaging in conversations about their profound impact. He advised that while great strides have been taken, there is still much work left to be done.

Session 7: RCMP Longitudinal PTSD Study—Project Design & Initial Results

Adding a research lens to the conversation, Dr. Nicholas Carleton, Scientific Director of the Canadian Institute for Public Safety Research (CIPSRT), presented on the project design and initial findings of the innovative RCMP Longitudinal Post-Traumatic Stress Disorder (PTSD) Study. With approximately 2,000 members of the RCMP community (nearly 10% of the entire force) currently on leave for PTSD and related mental health injuries—an issue referred to by Dr. Carleton as the "wicked problem" of police mental health—evidence-based protocols for assessing and reducing post-traumatic stress injuries in those who serve are urgently needed. With funding from the Government of Canada, researchers at CIPSRT and the University of Regina are conducting a multi-year research project to investigate the impact of policing on the mental health of RCMP members, with the goal of reducing the incidence and prevalence of PTSD and associated injuries among public safety personnel (PSP) through a skills-based training program. It is important to note that although PSP may be exposed to tens of thousands of potentially traumatic incidents throughout their careers, these are not the only factors that are contributing to negative mental health outcomes among the law enforcement community. Dr. Carleton noted that structural and organizational issues also play a significant role and account for almost half of the incidents researchers are seeing among PSP (the latest numbers from the National Police Federation dataset will be available in fall 2023). Research shows that these factors can include various barriers, ranging from a lack of clinicians informed on the unique needs of PSP, to the relative dwindling capacity of officers due to recruitment and retention challenges, and a general lack of research into effective early interventions.

To address this research gap, the RCMP PTSD Study follows a group of voluntary cadet participants from the moment they join the RCMP on their first day of training through the first five years of their careers. Participants are divided into two groups, with one group receiving the "standard" Cadet Training Program, and the other receiving specialized Emotional Resilience Skills Training (ERST). Through a variety of assessments at different points throughout the study, including the use of a wearable seismocardiography device, participants are asked to reflect on and record their mental and physical state in real time, which helps to form a dashboard of information they can access to monitor trends in their health. The goal, Dr. Carleton shared, is that enabling participants to monitor their own health, in addition to check-ins with a clinician, will help them start to identify potential changes in their well-being and reach out for support before it escalates to the level of a crisis or injury.

Although the study is in its early stages, Dr. Carleton shared that the program is already showing promising preliminary results, with the cadets receiving the ERST program reporting lower prevalence of anxiety-, mood- and trauma-related mental disorders, far lower suicidal ideation than serving RCMP or the general population, and better risk and resiliency variables. Among next steps for the study, he noted that efforts are currently underway to scale up participation and expand to more services so that greater support can be provided to uniform personnel. More information about the study can be found at rcmpstudy.ca and saskptsistudy.ca.

Session 8: Caring for Those who Protect Us—Exploring Best Practices and Interventions for Police Psychological Support after a Potentially Traumatic Event

Continuing with the research theme, the next session involved an overview of current research into evidence-based best practices and interventions for police psychological support following a potentially traumatic event (PTE), presented by Andrée-Ann Deschênes, Professor at the Université du Québec à Trois-Rivières and Annie Gendron, Researcher with École nationale de police du Québec. With a substantial proportion of the policing community reporting symptoms associated with PTSD and a greater likelihood of being exposed to PTEs, the researchers at RIPTOP (Recherche sur les interventions post-trauma dans les organisations policières) have been

exploring the psychological support needs of officers in Québec police organizations to determine the effectiveness of support programs in meetings officers' needs. What they have found is that although a large inventory of primary, secondary, and tertiary supports exists, these are overwhelmingly not meeting officers' needs due to a combination of barriers, which include the ambiguity of services and accessing help, fear of being judged, and a lack of clinical knowledge about police-specific life. They highlighted that officers exposed to traumatic events tend to seek out support from five main sources: their organization, manager, union, peers, and psychosocial workers—each with different needs in mind, demonstrating why it is essential to diversify the type of supports offered.

With the exploratory aspects of the research complete and an experimental prevention protocol in place, they are now assessing its impact on psychological health and well-being and its effectiveness as a post-trauma intervention. Although the study's small sample size makes it difficult to draw statistically significant conclusions, the preliminary results are encouraging. Early results are showing trends that peer supports, immediate follow-ups by supervisors, and check-ins with a psychological worker following a PTE are all having a positive impact on self-reported psychological health at work. They shared that while official conclusions are still in the works, the research provides practical implications for future studies by helping to identify how and when to intervene to best support staff after exposure to a PTE. By providing organizations and public safety personnel with the tools and support they need to enhance wellness, we can help protect those who put their lives on the line to protect us every day.

Session 9: Updating the Evidence to Support Police Wellness in an Environment of New Challenges

This session brought together selected panelists from the research community to highlight features from the special wellness issue of the *Journal of Community Safety and Well-Being*, "Updating Global Efforts to Promote and Secure First Responder Wellness," released in February 2023. The aim of the session was to highlight the work being done to update the baseline of policing wellness knowledge, to reset the conversation on the current challenges facing the policing community, and to collectively determine a path forward that prioritizes the well-being of all police employees. Forming the panel were guest moderators Lauren Jackson, Consulting Partner at Deloitte (the journal's special wellness issue sponsor), and Matt Torigian, Chief Strategy Officer of Public Safety for Niche Technology and the Journal's Senior Contributing Editor, special issue guest editors Dr. Linna Tam-Seto from McMaster University, and Drs. Jeff Thompson and Katy Kamkar representing the CACP's own Research Advisory Committee. Panelists shared their personal inspiration around the special edition, the need for action among policing leaders, and strategies to effectively foster an authentic culture of wellness in policing.

Affirming that you cannot have healthy resilient communities without healthy resilient police services, the panelists underscored the following key messages:

- There has been a lot of great talk in the last decade about policing wellness. It is now time for action.
- A focus on evidence-based policing strategies is needed to ensure that the best available research is being used to influence policy and practices in the most efficient way possible. The special wellness issue provides this by pulling together easily digestible, cross-sectoral pieces of literature that are focused on the common goal of improving police wellness.
- Workplaces and operational environments are key determinants of health that contribute to an individual's health and well-being. Protection and prevention must be centred at the heart of an organization's approach to wellness. The key ingredients to achieve this are building relationships, identifying shared goals, establishing a clear purpose, and reinforcing a collective vision.
- Quick fixes to mental health and well-being do not work. Organizations must act to define the responsibility of leaders in protecting and promoting officer wellness.
- Resilience is not built by listening alone, it is built by doing. Individual resilience programs cannot fix an organization unwilling to address inherent culture issues and a lack of effective support.
- We cannot continue to ignore the significant impact of policing on the families of law enforcement personnel. Families of officers experience unique challenges posed by their loved one's line of work that must be taken into account at the organizational level.
- Even the greatest leaders have an opportunity to improve. Everyone, especially leaders and senior management, has a role to play in improving wellness in policing. Moving focus upwards helps create genuine accountability and trust within an organization.

The complete, open access issue can be found at journalcswb.ca.

Session 10: Town Hall Session—Resetting the Baseline and Looking Forward to an Equitable Culture of Wellness in Canadian Policing

For the final session of the conference, moderator Norm Taylor was joined by a panel of selected speakers who showcased in rapid town hall sessions the work being doing in their respective organizations to enhance an equitable culture of wellness in Canadian policing. The presentations highlighted identified action topics on anti-stigma programming, people-centred leadership training, specialized investigations support, mental health service gaps in the private sector, and MHCC's Roots of Hope program.

Beginning with an overview of the province's Mental Health Secretariat (MHS), Karen Prokopec, Manager of the MHS at the Ontario Ministry of the Solicitor General, spoke about the work being done by the ministry to implement the recommendations from the Office of the Chief Coroner's expert panel report on police suicide, *Staying Visible, Staying Connected, For Life*. Aligned with the government's Roadmap to Wellness, she explained that the MHS has a vision "to build an integrated safety net that provides the right mental health supports at the right time for all public safety personnel across Ontario." Recognizing that mental health does fit into just one sphere, she summarized the six strategic goals that the newly formed Mental Health Collaborative Tables are working towards, and the shifting focus to research and action on supporting families

of public safety personnel and the return on investment of workplace anti-stigma programs.

Addressing the topic of people-centred leadership, Dr. Vivien Lee returned to the lectern to discuss the training program that is currently being rolled out to superintendents and detachment commanders in the OPP on this topic. Speaking to the lack of clear definitions of what people-centred leadership looks like day to day, she highlighted that a critical component of this work is the human element of being present. She provided a recap of the 13 psychosocial factors under the National Standard for Psychological Health & Safety in the Workplace and emphasized that showing vulnerability is the essence of courageous leadership—a prominent theme that emerged earlier in the day when deconstructing police tragedies—and how impactful humility and support from leaders are in earning the trust of members.

Moving the discussion to a national level, Cheryl Tremblay, Senior Research Analyst with the RCMP, presented on the Virtual Global Taskforce International Research Project on the Health and Wellness of Employees Working in Online Child Sexual Exploitation that was led by the RCMP, whose findings are being used to support the Sensitive Materials and Specialized Investigations Support (SSIS) team. Drawing on the three realms of responsibility among individuals, management, and organizations that were identified through the research, Tremblay spoke of the range of variables that contribute to a positive work environment and the impact of seemingly small actions on mental health and well-being. To help mitigate the impacts of the SSIS team's exposure to difficult work and graphic material, she highlighted the variety of evidence-based tools and techniques that are being used to help reduce exposures, such as setting up an ideal workspace, adjusting how content is viewed through wearable devices, and engaging in employee resilience training. Encouraging employees to identify accountability partners and enhance opportunities for peer support, she said, are key focuses of the work around building resiliency.

Next, Derek Sienko, President of Diversified Rehabilitation Group, spoke about the work that his organization is doing to enhance psychological wellness and support for first responders. Introducing the concept of psychological engineering, he discussed the need for service providers supporting public safety personnel to better understand and tailor their services to the unique needs of first responders. He noted that it is imperative that both the provider and the organization be speaking the same language when it comes to supporting mental health, especially when it comes to supporting individuals in returning to work following a mental health–related absence. When working with organizations to support first responder mental health, he stressed the significance of starting with open conversations between the individual, employer, and provider in order to build trust in the relationships and support lasting improvements in wellness.

For the final presentation, Nitika Rewari and Logan Seymour, the Director and Manager of Prevention and Promotion Initiatives at MHCC, respectively, provided an overview of the role workplaces have in preventing suicides and supporting employees in the policing sector. Following the release of the MHCC's Workplace Suicide Prevention Guide in 2021, they shared that work is currently being done to tailor the guide and best practices for suicide prevention to the needs of the policing sector, recognizing the growing prevalence of mental health issues and suicide among police officers. They presented on the MHCC Roots of Hope program, an adaptable community-led initiative that aims to reduce the impact of suicide, drawing attention to the applicability of the program's five pillars of action (Means Safety, Awareness, Research, Specialized Supports, and Training) to the policing sector. They concluded by encouraging policing leaders to become involved with the local suicide prevention and life promotion initiatives happening within their communities and invited delegates to take part in the Roots of Hope National Community of Practice that is starting in June 2023.

CLOSING REMARKS

In drawing the conference to a close, CACP President, Chief Danny Smyth, expressed sincere gratitude and thanks to the delegates for taking the time to check in and engage in critical conversations about how to move forward in building a stronger culture of policing wellness. He expressed hope that we never go five years without another check-in and reflected on the invaluable insights and work that was shared over the action-packed two days in Ottawa, noting that while the CACP will continue to lead the action and conversations surrounding policing wellness, leaders in policing must also rise to the challenge to own the content and momentum for putting it into action. With clear, tangible information provided on how to act, it must now be put into practice within the policing community.

The conference adjourned on Wednesday, March 8, 2023, with those in attendance expressing great satisfaction with the refreshing nature of the proceedings, along with a resounding reflection that a conference on this topic would have never occurred when many of today's policing leaders entered the profession. A strong sense of optimism and eagerness to put the content into evidence-informed action for policing wellness was apparent as the conference concluded.

CONFLICT OF INTEREST DISCLOSURES

The author has no conflicts of interest to declare.

AUTHOR AFFILIATIONS

*Session Recorder, CACP Wellness Check Conference 2023

REVIEW

Journal of
COMMUNITY SAFETY & WELL-BEING

Systematic review of blue-light service collaboration for community health and well-being

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ABSTRACT

Effective cross-service collaboration has been posed as a way of improving outcomes for people, enhancing community safety and well-being, reducing social and health inequalities, and improving service resource efficiencies. However, it was not known what evidence and frameworks existed for service leads to reform collaborative public service responses.

This systematic review aimed to summarize evidence to understand best ways for police, fire, and ambulance services to collaborate to improve community safety and well-being. Standard methodology was used following PRISMA guidance. The search strategy optimized report retrieval from a broad range of academic databases, grey literature, and citation hand-searching from January 2012 to March 2022. Endnote 8 supported data management. Eligible reports explored collaboration benefits between any two emergency services to improve any aspect of community safety or well-being and had to provide relevant extractable information. Critical appraisal and syntheses of findings were conducted. Studies could originate from any country. Records were screened and retrieved by one author and included reports independently double-screened.

From the academic databases, 4,648 reports were identified and screened, of which 25 reports were retrieved and assessed for eligibility, but no relevant studies were retained following full text review. A further 27 records were identified from websites and citation searching, of which three were included following eligibility checks. The scant evidence uncovered in this review tentatively suggests service collaboration initiatives have potential for decreased resource use, increased public confidence, faster responses, increased survival rates, and reduced unnecessary emergency responses. Robust evidence is needed to influence policy and practice.

Key Words Police, fire, and ambulance joint response; emergency response; inequality; resource use; partnership working; connected working.

INTRODUCTION

Rationale

The benefits of cross-service collaboration have been posed as a means to improve outcomes for people, enhance community safety and well-being, reduce social and health inequalities, create better models of partnership working, and resource efficiencies for services (Christie Commission on the Future Delivery of Public Services, 2011; O'Neill & McCarthy, 2014; Rummery, 2009; Strudwick et al., 2022). In Scotland, the Christie Report acknowledged public service collaboration was central to achieving a fair society, being especially relevant in protecting those most vulnerable in society (Christie Commission on the Future Delivery of Public Services, 2011).

The Chiefs of Police Scotland, Scottish Fire & Rescue Service and Scottish Ambulance Service established the Reform Collaboration Group (RCG) to build collaboration aimed at improving outcomes for people in Scotland (Scottish Emergency Services National Collaboration Strategy, 2018). However, it was not known what UK or international evidence existed to inform the RCG collaborative project development strategies, whether individual outcomes were improved or intended benefits to services realized along with associated efficiencies. The RCG commissioned this review (Scottish Institute for Policing Research, 2021) to provide evidence to inform their project development work.

Aim and Objectives

This review aimed to summarize relevant literature to understand best ways of police, fire, and ambulance services collaboration to improve community safety and well-being.

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The specific objectives were to establish what international evidence existed for effective collaboration between the three "Blue Light" emergency services for: community safety and well-being; reducing social and health inequities; primary, secondary, or tertiary prevention; best conditions for collaborative benefits including methodology and frameworks; cost-effective use of resources.

METHODS

This systematic review was completed to PRISMA reporting guidelines (Page et al., 2021).

Eligibility Criteria

Studies were included if they: explored effectiveness/benefits including costs of cross-service collaboration (police, fire, ambulance) to provide improvements in community safety and well-being or reductions in social and health inequalities; provided sufficient information regarding aims, methods, focus, findings, and conclusions; published in English since January 2012.

Information Sources

Databases searched were: ASSIA; Sociological Abstracts; Social Services Abstracts; MEDLINE, PsycINFO, Social Care Online, Social Policy & Practice, Social Services Abstracts; Science Citation Index Expanded; Social Sciences Citation Index; Arts & Humanities Citation Index; Emerging Sources Citation Index; Conference Proceedings Citation Index Science; Conference Proceedings Citation Index Social Sciences & Humanities; Book Citation Index Science; Book Citation Index Social Sciences & Humanities; Campbell Collaboration. Past editions of the Journal of Emergency Management and International Journal of Emergency Services were hand-searched.

For the grey literature search, we performed extensive and iterative searches of Google and Google Scholar. We searched references and resources supplied by key national (including UK College of Policing) and international contacts regarding small-scale evaluations of change. We further augmented this via requests across our Twitter networks in March 2022. To check for Scottish relevance, we also searched websites of National Ambulance Research Steering Group (NARSG Ambulance Research); Fire Service Research and Training Trust via the portal Ignite (research – FSRTT (fire-trust.info), and Scottish Institute for Policing Research (SIPR) including "select bibliography" of 2,945 records to March 2022.

Search Strategy, Selection, and Data Collection Process

Exploratory database searches were conducted for terms related to "Police or Fire or Ambulance" and combined with terms such as "Collaboration; Community safety; Wellbeing; Social inequalities; Health inequalities." This exploratory pilot searching of the evidence did not identify relevant included studies but did refine our final search strategy with the following architecture:

1. exp Police/ or exp Ambulances/ or exp Firefighters/ or exp Emergency responders/ or (police or fire or ambulance).m_titl or "rescue service*".m_titl or (police and ambulance).m_titl or (police and fire*).m_titl or (ambulance and fire*).m_titl or exp Police Personnel/ or exp Fire Fighters/ or exp Paramedics/ or exp Emergency Services/
2. (Interagency collaboration) OR (integrated collaboration) OR (multiagency collaboration) OR (interprofessional collaboration) OR collaboration. M_titl OR exp Interinstitutional Relations/ OR Interagency collaboration.af.
3. 1 AND 2
4. Limit 3 to published between January 2012 and March 2022

The search architecture above contained dedicated terms used in advanced evidence base searches (e.g., "exp" means "explode" to capture all narrower terms associated with broader concepts). Reports had to be written in English as there was no budget for translation. There was no geographical limit on location of studies. Search results were downloaded into a reference management system (EndNote 8). Studies were retained if they met eligibility criteria. One author (SMacG) screened each record, retrieved included reports, and collected data from each report. Included reports were independently double-screened and confirmed (ND). No automation tools were used.

Data Extraction, Critical Appraisal, and Synthesis Methods

Data were extracted for: study design, methods, populations, intervention used, main concept, and outcomes for tri- and bi-partite service collaborations. Extracted data were cross-checked and disagreements resolved by consensus (all authors). We assessed included studies using the Assessment of Real-World Observational Studies (ArRoWS) critical appraisal tool (Coles et al., 2021) the Assessment of Real-World Observational Studies (ArRoWS). The ArRoWS tool contains nine identified core items to quickly and easily assess the quality of real-world evidence studies.

Characteristics of included reports were tabulated, with key information highlighted. All authors met to review tabulated data and identified key concepts to reach overarching narrative themes.

RESULTS

Study Selection

Following the final search strategy for tri- or bi-partite collaboration, 4,648 academic reports were identified and screened, of which 25 reports were retrieved and assessed for eligibility, leaving no new relevant studies after full text review (see Figure 1).

Further iterative grey literature searching of many more thousands of potential documents and references resulted in 23 reports being retrieved, and, following eligibility assessment, three potential reports of interest were included (Bronsky et al., 2017; Elias et al., 2021; Emergency Services Collaboration Working Group, 2016). Contact with key experts and via Twitter elicited a small number of responses but did not yield any relevant reports. Given the apparent paucity of reports, care was taken to not exclude potentially relevant studies by retaining *any* with any relevance to community safety and well-being.

Excluded documents were tabulated, highlighting their focus and with comments on relevance, (see Supplemental

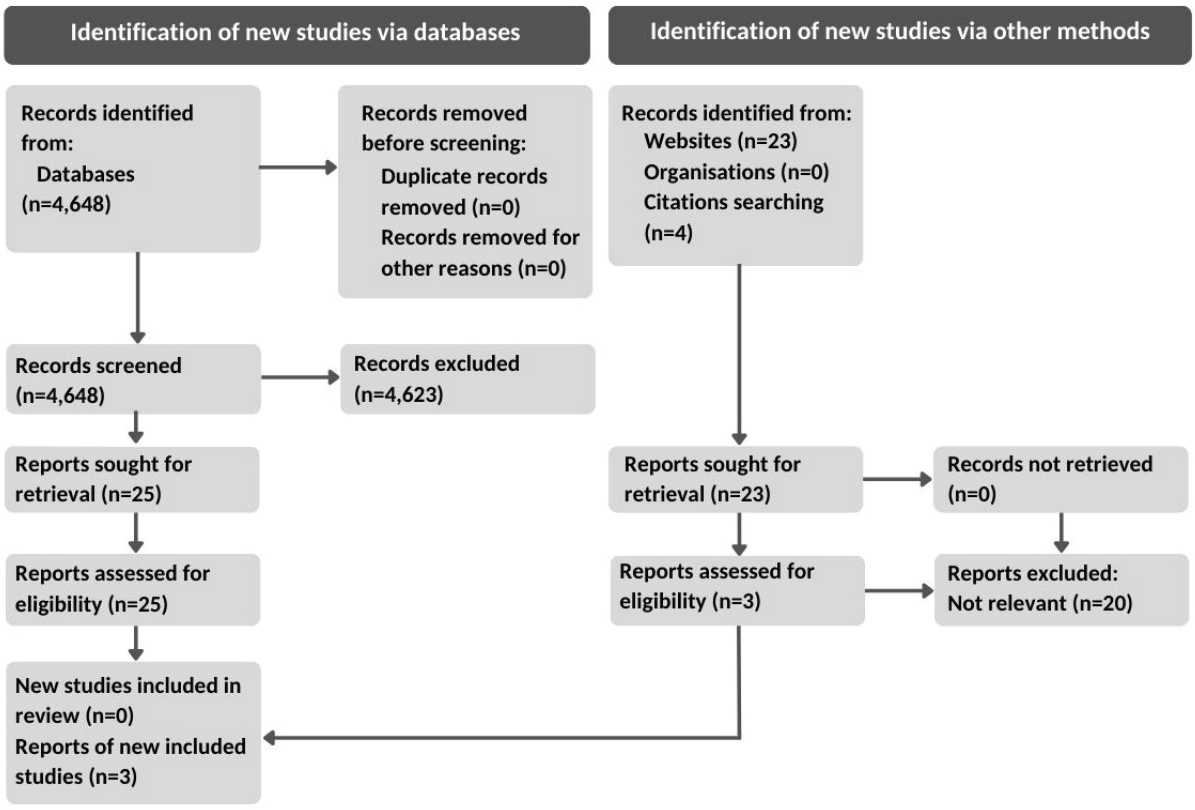

FIGURE 1 Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) flow diagram

Table S1). Table S1 demonstrates these documents were not research or evaluations of collaboration between any blue-light services focussed on improvements in community safety and well-being, or reductions in social and health inequalities. Many documents were news items, and very few related to community safety and well-being.

Study Characteristics

The three grey literature reports provided some relevant data and were from Australia, the United states, and the United Kingdom (see Table I). The first described a specific program to respond to the needs of vulnerable older people with an alternative to hospital admission (Elias et al., 2021). The second was a specific community program improving outcomes for people who frequently use Emergency Departments (EDs) (Bronsky et al., 2017). The third report was a "National Overview" of several projects and initiatives across England and Wales (Emergency Services Collaboration Working Group, 2016), which summarized activities by six main headings: "First response and co-responding," "Demand management and rationalisation," "Shared estates and assets," "Joint control rooms," "Wider collaboration," and "Strategic alliances and partnerships", reported in more detail in Table II.

Critical Appraisal of Studies

Two included studies were empirical real-world observational studies, one using a case study approach of data collected via quality improvement and service evaluation (Elias et al., 2021) and the other a retrospective program evaluation (Bronsky et al., 2017). We assessed these studies using the ArRoWS critical appraisal tool (Coles et al., 2021) the Assessment of Real-World Observational Studies (ArRoWS), finding some methodological issues, and Elias et al. offered more robust findings (see Table III).

Results of Individual Studies

The first included report was by Elias et al. (2021), based in New South Wales, Australia, and described the development, implementation, and initial evaluation of the Geriatric Flying Squad's reciprocal referral pathways with emergency responders including Ambulance, Police, and Fire and Rescue. The program avoided 331 estimated 9-1-1 calls per month, 144 ED visits per month, and 52 hospital admissions per month (see Table I).

The second included report was by Bronsky et al. (2017) based in Colorado, United States, and focussed on a subset of individuals who were "super-utilizers" of ED services. A community-wide collaboration program, Community Assistance Referral and Education Services (CARES), comprised several providers who interacted at different points during each patient's intervention according to individual needs. Providers included fire fighters and paramedics. The study was a retrospective pre- and post-program evaluation, and the median (interquartile [IQR]) monthly rate of 9-1-1 calls, ED visits, and hospital admissions statistically significantly decreased by 0.26 (–0.06, 0.90), 0.25 (–0.08, 0.71), and 0.18 (0.04, 0.53), respectively, ($p < 0.001$ for all; see Table I).

TABLE I Summary of three included reports*

Source (Date)	Focus	Relevance to the Review	Reference
Journal of Integrated Care (2021)	Describes the development, implementation and initial evaluation of the Geriatric Flying Squad's reciprocal referral pathways with emergency responders including New South Wales Ambulance, Police and Fire and Rescue. These innovative pathways and model of care were developed to improve access to multidisciplinary services for vulnerable community dwelling frail older people with the intent of improving health and quality-of-life outcomes by providing an alternative to hospital admission.	Case study describing the review of the Geriatric Flying Squad's referral database and quality improvement initiative to streamline referrals amongst the various emergency responders in the local health district. The implementation and initial evaluation of the project through online survey are further described.	Elias et al., 2021
Prehospital Emergency Care (2017)	A subset of individuals who inefficiently and frequently use emergency department (ED) services are called "super-utilizers." Community-wide collaboration program called CARES (Community Assistance Referral and Education Services) is comprised of several providers including intake and navigation teams, who interact at different time points during the patient's intervention according to individual needs.	Providers include fire fighters and paramedics.	Bronsky et al., 2017
The Emergency Services Collaboration Working Group National Report (2016)	Emergency Services Collaboration Working Group National Overview. The report provides examples of collaborative projects, plans and initiatives from across England and Wales.	Report (see Table II below for description of projects/initiatives and any outcomes)	Emergency Services Collaboration Working Group, 2016

*Table reproduced from the authors' report with permission from Scottish Institute for Policing Research (Dougall et al., 2023).

TABLE II Summary of the Emergency Services Collaboration Working Group 2016 report*

Focus of Collaborative Activity	Summary of Activity	Outcomes
1) First response and co-responding	Areas: London; Merseyside (Pilot); Greater Manchester; Wales (Mid and West); Essex; Hertfordshire.	—
First Response – Cardiac Arrest	Provision of defibrillators and training to blue-light services. In the event of suspected cardiac arrests, police and fire and rescue personnel are equipped to respond with automated external defibrillators (AEDs), providing prompter response times and increasing patients' chances of survival and subsequent quality of life.	Response times and survival rates were reported to have improved.
Emergency First Response (EFR)	The EFR scheme was set up to improve clinical outcomes and cardiac arrest survival rates with a focus on servicing rural communities. The scheme involves utilizing on-call firefighters to provide an EFR in collaboration with the ambulance service.	Response times were reported to have improved.
Community Safety Responders (CSRs) (Pilot)	CSRs perform the joint roles of Police A Community Support Officer (PCSO), retained on-call firefighter (RDS), and an emergency medical responder (EMR) were trained to attend ambulances. They provided Service Red 1 and 2 category calls from their base within the local fire and police stations.	No data
Telecare Response Service	Telecare equipment supports people to live safely and independently at home. Using special sensors, Telecare can detect potential emergencies at home (e.g., falls, wandering, medication, mismanagement, fire, flooding, carbon monoxide and gas leaks). Retained firefighters became first responders.	No data
Co-Responding	Co-responders are firefighters who are trained and assessed in basic life support procedures, including the use of AEDs and oxygen therapy.	Improvement in statutory response times seen. Costs savings noted (possibly due to decrease in fines for not meeting targets).
2) Demand management and rationalization	Areas: Essex; Hampshire (Pilot); Lancashire; Surrey/Sussex; West Midlands. Demand management and rationalization of services reduces harm by improving the capability of services to deal with incidents. The services can mobilize a faster response to incidents and performance is enhanced by improved interoperability.	—

Focus of Collaborative Activity	Summary of Activity	Outcomes
Forced Entry and Missing People	Not relevant to review	N/A
Revised Policy on Sudden Deaths	Not relevant to review	N/A
Clinical Support Desk – Triaging Calls	In London: Instead of automatically sending an ambulance response to all police requests, a dedicated team in the control room reviews the cases that come in via control link (as opposed to those coming through the 999 system) to determine the patient's condition. In Merseyside: A paramedic is based with the police in the Joint Command Centre.	Some data to suggest reduction in need for deployment of ambulance.
Joint Response Unit (JRU)	A London Ambulance Service fast response vehicle with one paramedic responds solely to police requests for medical assistance (except Red 1 calls). JRU aims to provide on-scene triage, assessment, and treatment of patients. Piloted in Hackney in 2011, it has subsequently been rolled out in 12 London boroughs.	79.3% of JRU attendances did not require a full ambulance deployment.
PCSOs employed as RDS Firefighters (Pilot)	Not relevant to review	N/A
Rural Intervention Vehicles (RIVs)	In March 2014, a jointly crewed fire/police response vehicle (operated by a police constable and a watch manager) which would be responsible for providing greater visibility in rural areas and focus more broadly on community safety issues than just traditional areas of Police and Fire business. Two RIVs carried out a total of 315 local engagement activities, including school visits, recruitment events, home-fire safety checks, crime prevention, farm watch, and road watch engagement activities.	Public confidence in the emergency services and community safety said to have increased. RIVs quite often arrive at a scene faster than other resources and have been able to stand down other resources, before they arrive, meaning a reduction in fuel costs of larger appliances and road risk.
3) Shared estates and assets	Shared estates and assets facilitate closer dialogue between the services. Savings are generated through the removal of duplication of property costs, sharing utilities and the possibility of sale or re-sale of existing sites and properties. Costs are also reduced due to diminished travel time.	—
Shared HQ	Not relevant to review	N/A
Joint Vehicle Workshop	Not relevant to review	N/A
Shared Training Centre	Not relevant to review	N/A
Tri-Service Hub	Not relevant to review	N/A
Joint Facilities	Not relevant to review	N/A
Dynamic Activation Posts (DAPs)	The aim of dynamic deployment is to increase patient care and response times through the placement of resources in areas of predicted high demand. DAPs help ensure that East of England Ambulance Service (EEAS) meets its target of reaching 75% of all life-threatening emergencies within 8 minutes.	Faster response times to emergency calls are reported to be one of the benefits.
FUTURE: Fleet Procurement	Not relevant to review	N/A
4) Joint Control Rooms	Joint control rooms provide great opportunities for increased collaboration and closer working which can enable faster and more effective responses to incidents (e.g., advanced/senior paramedics work in Police Command Centres [specifically, in times of exceptional demand]).	Reported improvements in reducing demand on both police and conveying ambulance resources. Collaboration described as hugely beneficial in understanding "each other's" needs in terms of information requirements, risk assessments and incident prioritization.
5) Wider collaboration		—
Community Engagement	Collaboration between the services on community projects is well developed. Current projects involve community engagement with young people and families, addressing housing issues and developing civil contingency units.	Little to no data or evaluations of these.

Focus of Collaborative Activity	Summary of Activity	Outcomes
Housing	Not relevant to review	N/A
Local Resilience Forums	Not relevant to review	N/A
6) Strategic alliances and partnerships		—
Information Sharing	Not relevant to review	N/A
Community Safety – Operation Insight	Not relevant to review	N/A
Information Sharing Protocol and Operational Learning	Not relevant to review	N/A
Embedded Fire Officer into the Northwest Counter Terrorism Unit and Civil Contingencies Resilience Unit	Not relevant to review	N/A

EFR = emergency first response; CFR = community first responder; PCSO = community support officer; AEDs = automated external defibrillators; EMR = emergency medical responder; JRU = joint response unit; RDS = retained firefighter; RIV = rural intervention vehicle; DAPs = dynamic activation posts; N/A = not applicable.

*Table reproduced from the authors' report with permission from Scottish Institute for Policing Research (Dougall et al., 2023).

TABLE III Critical appraisal using the ArRoWS tool

Questions	Elias et al., 2021	Bronsky et al., 2017
1. Is the research question or objective(s) clear?	Yes	Yes
2. Is the study sample representative of its target population?	Yes. Included all referrals to the service during a defined period	No. Those with missing outcome information were excluded
3. Has a sample size, power calculation or measure of uncertainty (e.g., confidence intervals, standard errors) been provided?	No. Descriptive data only	Yes. Sample sizes and confidence intervals were reported
4. Are the exposure measures clearly defined and appropriate?	Yes	Yes
5. Is/are the outcome(s) clearly defined and appropriate?	Yes	Yes
6. Are confounders clearly defined and appropriate?	No clear consideration of any	Patients were their own controls
7. Are the statistical analyses clearly defined and appropriate?	No statistical analyses	Yes
8. Are the limitations of the study defined and appropriate?	Some appropriate limitations discussed	Some appropriate limitations discussed
9. Have the authors drawn appropriate conclusions from their results?	Conclusions are not overstated	Conclusion may overstate given methodological weaknesses

The third and final included report was The Emergency Services Collaboration Working Group (2016), which provided examples of collaborative projects, plans, and initiatives from across England and Wales. There was some limited evidence regarding initiatives involving collaboration (see Table II):

- ***First response and co-responding*** initiatives around emergency response to cardiac arrest with various collaboration models showing some evidence of reported improved response times, survival rates and cost-savings. Two further promising initiatives were Community Safety Responders (CSRs) performing combined police, fire, and emergency medical responder roles, and a Telecare Response Service that supported people to live independently at home. No outcomes were reported.
- ***Demand management and rationalization*** included clinical support triaging calls, with some outcomes suggesting a reduction in need for deployment of ambulances. A joint response unit (JRU), which was a London Ambulance Service fast response vehicle with a single paramedic that responded solely to police requests for medical assistance suggested that 79% of attendances did not require full ambulance deployment. Jointly crewed Fire/Police response vehicles in rural areas focussed on community safety and local engagement activities suggested that public confidence and safety increased and arrival on scene was faster, enabling other

resources to stand down with cost savings and reduced road risk.

- ***Shared estates and assets*** included an intervention termed "dynamic deployment" that aimed to increase patient care and response times through resources being placed in areas of predicted high demand to help emergency services reach 75% of all life-threatening emergencies within 8 minutes. Faster response times to emergency calls were reported as beneficial. No other initiatives relevant to the review were reported under this heading.
- ***Joint control rooms*** for increased collaboration (e.g., advanced/senior paramedics worked in Police Command Centres) reported improvements in reducing demand on both police and conveying ambulance resources. Collaboration was described as hugely beneficial in understanding respective needs for information requirements, risk assessments and incident prioritization. No evaluations were provided.
- ***Wider collaboration*** between services on community projects was described as well-developed, involving community engagement with young people and families, addressing housing issues and developing civil contingency units. No evaluations were provided.
- ***Strategic alliances and partnerships*** encompassed themes of information sharing, community safety, operational learning and embedding fire officers in different units but did not provide information relevant to this review.

Results of Syntheses, Reporting Biases, and Evidence Certainty

The information retained from the grey literature was scant, and meaningful syntheses or assessments of evidence certainty were unfeasible.

DISCUSSION

Main Findings

Our review provided no peer reviewed empirical literature regarding collaboration between blue-light services with the specific intent to improve community safety and well-being. We could not provide any syntheses addressing the review objectives (i.e., there was no evidence in support of reducing social or health inequalities, or of methodologies or frameworks to deliver collaborative benefits, or cost-effective use of resources).

It was apparent from the grey literature retrieved that, in rare instances where blue-light services have formally collaborated and provided outcome data, the outcomes fell under one or more of the following: accessing services; emergency service usage and deployment (ambulances); ED usage and hospital admission; response times and survival rates; and public confidence. There were, in general, reported reductions in resource use and improved survival rates associated with increased efficiencies, and presumably reduced costs. This was accompanied by suggested improvements in public confidence in emergency services and increased community safety.

Although in the United Kingdom, the Policing and Crime Act 2017 (Policing and Crime Act 2017), the Crime and Disorder Act 1998 (Crime and Disorder Act 1998), and the policing principles of the Police and Fire Reform (Scotland) Act 2012 (Police and Fire Reform (Scotland) Act 2012) place a statutory duty on Police, Fire and Ambulance Services to consider collaboration to deliver efficiency, effectiveness, and/or better outcomes for communities, we found a distinct lack of evidence in support of these collaborations. However, it is possible that there are ongoing collaborations that have not reported findings, or are yet to report, and it may be worth updating this review in 5 years. One such initiative are the UK multi-agency safeguarding hubs (MASH) intended to be effective multi-agency partnerships addressing the lack of information sharing between agencies, and preventing unnecessary exposure of people with vulnerability to harmful situations (Multi-agency working and information sharing-project: Final report, 2014). Evaluations of these initiatives did not appear in our search for evidence, and it is likely that the multi-agency approach includes blue-light services but not with bi- or tri-partite related outcomes—one notable example did mention fire and police included as multi-agencies. However, the outcomes were not bi-partite and did not meet our inclusion criteria (Shorrock et al., 2020).

Alongside this review, SIPR also funded a case study evaluation of cross-service collaboration using a community hub model, providing further evidence of cross-service collaboration (Dougall et al., 2023). The SIPR-funded case study was commissioned by the RCG in Scotland and illustrates the progressive approach in recognizing the value of evidence for collaborative partnership working and leadership (Docherty & Russell, 2022).

A previous review of research into emergency services collaboration by Parry and colleagues in 2015 noted that "most of the academic literature tends to focus on major incidents, small case studies or responding to major incidents" (Parry et al., 2015, p. 4). Our review found a substantial evidence gap of peer reviewed empirical literature regarding collaboration between blue-light services designed to improve community safety and well-being. Very little evidence appears to have been reported (or be available) regarding evaluations of collaborative initiatives in this area.

Limitations

Our search terms aimed to find evidence for blue-light collaboration to improve community safety and well-being or reduce inequalities. The search terms were not designed to capture emergency and disaster responses, where it is likely that much more literature is available for collaborative blue-light responses, and it is possible that community prevention activities were not the focus but included as secondary outcomes and missed in this review. It is also possible that the broader emergency management literature beyond blue-light response to other agencies also contained relevant evidence and should be considered in future research. Another possible limitation is that blue-light services may be in possession of consultancy reports for internal use only, embargoed for a variety of reasons and unavailable to researchers to identify. However, we did ask our steering group blue-light service representatives to identify and produce any relevant such reports, and none were forthcoming because they did not exist. Relevant items may also have been missed due to inconsistent terminology between reports, contributing to the sparse documentation retrieved, the language limited to English

only due to budget constraints, and being published prior to January 2012. Finally, we did not register the review protocol in advance of the review, and this would have improved the rigour by pre-specifying our stated aims.

Implications for Practice, Policy, and Research

Future literature reviews should focus on broader collaboration work involving other agencies beyond blue-light services (e.g., multi-agency safeguarding hub (MASH) initiatives) (Shorrock et al., 2020) or specific topic examples that may inform future collaboration (e.g., police carriage of naloxone) (Speakman et al., 2023). There is a real need for blue-light service collaborations to go beyond internal reviews of effectiveness of collaborations and, where possible, document and publish outcomes stemming from these collaborations to provide high-quality evidence of potentially effective collaboration. Ideally these collaborations should be independently evaluated and published in academic journals to inform future evidence-based initiatives.

CONCLUSION

To our knowledge, this is the first review to summarize blue-light service collaborations to improve community safety and well-being. Although this review only retrieved three reports, the scant evidence uncovered suggests that service collaboration initiatives have potential for decreased resource use across services, increased public confidence, faster responses, increased survival rates, and reduced risks associated with unnecessary emergency responses from other services. In future, blue-light services should consider these preliminary findings and focus more on problem-solving initiatives for improving communities' safety and well-being to ascertain whether any of these associated public health and service benefits are realized. In order to demonstrate impact and inform evidence-based approaches to blue-light collaboration, it is imperative that such collaborative work be independently evaluated to provide robust evidence of what works to influence policy and practice nationally and internationally.

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CONFLICT OF INTEREST DISCLOSURE

The authors declare that there are no conflicts of interest.

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SUPPLEMENTAL MATERIAL

Supplemental information for this article is available online at journalcswb.ca/index.php/cswb/article/view/319/supp_material:

- Supplemental Table S1

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REVIEW

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What works to prevent violence against women, domestic abuse and sexual violence (VAWDASV)? A systematic evidence assessment

Samia Addis* and Lara Snowdon†

ABSTRACT

This review identifies effective practice for the prevention of violence against women, domestic abuse and sexual violence (VAWDASV). The review is underpinned by public health principles which provide a useful framework to understand the causes and consequences of violence as well as prevention. This systematic evidence assessment had two stages: a database search identified reviews of interventions designed to prevent VAWDASV, published since 2014; a supplementary search identified primary studies published since 2018. Reviews (n=35) and primary studies (n=16) focus on a range of types of violence and interventions. At the individual and relationship level, interventions work to transform harmful gender norms, promote healthy relationships, and promote empowerment. In the community, effective interventions were identified in schools, the workplace, and health settings. Finally, at the societal level, interventions relate to legislation and alcohol policy. The findings reveal a wealth of literature relating to the prevention of VAWDASV. However, gaps in research were identified in relation to the prevention of trafficking, violence against women, domestic abuse, sexual violence among older age groups, and so-called honour-based abuse other than female genital mutilation. Also, while many interventions focus on change at the individual and relationship level and within community settings, there is less evidence for societal-level prevention. The prevention of VAWDASV is both feasible and effective and there is an imperative to invest both in prevention programming and high-quality research to continue to guide efforts to prevent VAWDASV.

Key Words Gender-based violence; Prevention and early intervention; Adolescent dating violence; Intimate partner violence.

INTRODUCTION

The Consequences of Violence Against Women, Domestic Abuse and Sexual Violence

Violence against women, domestic abuse and sexual violence (VAWDASV) is a major public health problem, a criminal justice issue, and a violation of human rights that impacts individuals and families and harms the health of communities, societies, and economies (World Health Organisation, 2021).

Within the term VAWDASV, a range of forms of violence are recognised. These include gender-based violence (GBV); intimate partner violence (IPV); domestic violence and abuse (DVA); sexual violence and abuse (SVA); coercive control; forced marriage; child marriage; so-called honour-based abuse (HBA); female genital mutilation (FGM); human trafficking; sexual harassment; cyber harassment, and adolescent dating violence (ADV). Many of these terms are used as umbrella terms and are not mutually exclusive but are reflected here as they are used in the literature.

While boys and men can be victims of certain forms of VAWDASV and abuse occurs within same-sex relationships, family relationships, and against transgender men and women, in terms of the scale of the problem being addressed by VAWDASV programs, overwhelmingly, perpetrators tend to be male while the victims are mainly female. As a result, understanding VAWDASV requires an appreciation that it is part of a social pattern of predominantly male violence towards women (Hester & Lilley, 2014). This means recognizing the gendered nature of violence against women as rooted in power imbalances and inequality between women and men (Council of Europe, 2011).

At the same time, sexuality, age, class, race, and disability intersect with gender and create differences in lived experience of VAWDASV, access to services, as well as unequal

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outcomes. This means that while VAWDASV can happen to anyone, anywhere, some women and girls are particularly vulnerable—for example, young women and girls, women who identify as lesbian, bisexual, transgender, or intersex, migrants and refugees, indigenous women and ethnic minorities, women and girls living with HIV and disabilities, and those living through humanitarian crises (United Nations, 2021).

The short- and long-term health consequences of VAWDASV for women's health are many and significant. Sexual violence can lead to a multitude of health consequences for women, including physical, reproductive and psychological consequences (Jina & Thomas, 2013). Female genital mutilation can lead to both immediate health risks and a variety of long-term complications which can affect women's physical, mental, and sexual health and well-being throughout the life-course (World Health Organisation, 2023). Women who experience violence are at higher risk of injuries, with 42% of women who experience IPV reporting an injury as a consequence of this violence. Women who suffer IPV are twice as likely as women without experience of IPV to experience depression and 1.5 times more likely to acquire a sexually transmitted infection (World Health Organisation, 2018).

Additionally, such violence can have fatal outcomes. Every day, 137 women are killed by a family member, and it is estimated that, of the 87,000 women who were intentionally killed globally in 2017, more than half (50,000) were killed by intimate partners or family members. More than a third (30,000) of the women intentionally killed in 2017 were killed by their current or former intimate partner (United Nations Office on Drugs and Crime, 2019).

VAWDASV places a heavy burden on health, economic, and social prospects, with the adverse psychological, sexual, and reproductive health consequences affecting survivors at all stages of life. In addition, VAWDASV has health consequences for children and socio-economic impacts on families, communities, and societies (World Health Organisation, 2021). In the United Kingdom, a Home Office report estimates the economic and social costs of domestic abuse at £66 billion annually (Oliver et al., 2019), suggesting that if all forms of VAWDASV were included, the costs would be considerably higher.

Preventing VAWDASV

The "ecological framework" for violence prevention presents a model which represents the complex interplay between individual, relationship, community, and societal factors, which interact to determine the risk and experience of violence. Such models, a key feature of a public health approach, are based on the idea that influence and determinants are interrelated, reinforcing the importance of a comprehensive approach in which actions at each level of the social ecology work to support other levels.

The principles of public health, including a focus on inequalities, partnership working, and evidence-based practice, also provide a useful framework to understand the causes and consequences of violence and for preventing violence from occurring through primary prevention programs, policy interventions and advocacy (Violence Prevention Alliance, 2021). Three tiers of intervention are identified by public health prevention science. Primary prevention aims to prevent violence before it occurs; secondary prevention focuses on the immediate response to violence; tertiary prevention focuses on long-term care after violence has occurred.

Applying this framework to VAWDASV has demonstrated its effectiveness as a tool for supporting change across the spectrum of time that violence occurs (Walden & Wall, 2014). However, it is acknowledged that the division between primary, secondary, and tertiary violence prevention is not always clear cut, and that levels of prevention are not mutually exclusive (Heard et al., 2020).

Study Aims

In Wales, the National Strategy identifies the primary prevention of VAWDASV as a key commitment (Welsh Government, 2016). In 2020, the Welsh Government commissioned an evidence review to address the research question "What works to prevent VAWDASV?." The purpose of the review was to identify effective practice for the prevention of VAWDASV, with the findings intended to inform the adoption of evidence-based practice through a national VAWDASV strategy refresh in Wales in 2021.

METHODS

Search Strategy

Initial mapping of the research area was undertaken to ensure that the review included:

a. The range of types of violence encompassed by the term VAWDASV.
b. The range of interventions relating to primary and secondary prevention.
c. The range of potential intervention outcomes.

The following databases were searched: Cochrane Database of Systematic Reviews, PubMed, DARE, Medline, and Google Scholar. Using a defined search strategy, the searches were undertaken in two stages between November 2020 and February 2021. Stage one identified systematic reviews of interventions related to the primary or secondary prevention of VAWDASV (published 2014–2020). Stage two was a supplementary search which identified primary studies published more recently (2018–current) that, as such, may not be included in the systematic reviews identified and studies that encompass topics where the evidence base may be too limited to be the subject of a systematic review.

The study used a PICO format. See Table I for search terms included.

See Table II for additional terms for the supplementary search.

Child sexual abuse (CSA) was not included in the search because, while there are significant links between CSA and VAWDASV, it is deemed a safeguarding issue and outside the remit of the Welsh Government definition of VAWDASV.

Inclusion and Exclusion Criteria

To be included for Search 1, papers had to be a systematic review of interventions designed to prevent VAWDASV and published since 2014. For Search 2, papers had to be published since 2018 and focus on interventions designed to prevent VAWDASV. Across both searches, papers had to focus on

TABLE I Search terms: Search 1

Population/ Problem	Partner violence OR partner abuse OR sexual violence OR sexual abuse OR domestic violence OR domestic abuse OR gender-based violence OR violence against women and girls OR sexual exploitation OR coercive control OR forced marriage OR female genital mutilation OR sexual harassment OR slavery OR honour violence OR honour abuse
Intervention	Early intervention OR primary prevention OR secondary prevention
Control	Not applicable
Outcome	Behaviour change OR reduction OR what works OR effective*

TABLE II Search terms: Search 2

Population/ Problem	Sexual exploitation OR night-time economy/sexual violence OR societal approaches OR community approaches OR whole system approaches OR elder abuse OR healthcare (including IDVAs) OR UK based evaluations OR communications/social marketing OR child sexual exploitation.

IDVA = Independent Domestic Violence Advisors

primary and secondary prevention strategies, be written in English, and review interventions implemented within high-income countries with a similar social and cultural context to Wales (reviews which considered low- and middle-income countries in addition to high-income countries were also included).

Selected records were imported into an excel spreadsheet, duplicates were removed, and each record was screened against the inclusion/exclusion criteria by one author. Where there was a query about inclusion, records were assessed by the second author and any differences were resolved through discussion (Figure 1). This resulted in the inclusion of 35 reviews and 16 primary studies (Appendix A).

Analysis

For each paper, extracted data included violence type, intervention type, intervention setting, age range, and the number and type of studies included (systematic reviews) or type of study (primary study). Due to the diversity of approaches and studies included, this review uses a narrative synthesis, sorting studies into common themes and providing a descriptive summary of each.

RESULTS

The reviews and primary studies were categorized and are presented according to intervention type; each intervention type is placed within the socio-ecological framework which highlights four levels where prevention can occur (Table III).

Where reviews include a range of intervention levels but focus on a specific violence type (e.g., IPV), these have been summarized separately.

Individual Level

Changing Gender Norms

Violence prevention practice has evolved to include approaches that seek to transform the relations, norms, and systems that sustain gender inequality and violence, in recognition that masculinity and gender-related norms are implicated in violence (Casey et al., 2018; Jewkes et al., 2014). While findings overall for these interventions were mixed, some studies found promising evidence of change; "Real Consent" showed statistically significant increases in terms of gender equitable attitudes as well as documenting a significant decrease in reported IPV over time. Additionally, it was the only program delivered online and to individual participants (Casey et al., 2018). Another program, "Changing Boys into Men" (CBIM) was found to significantly decrease overall domestic violence perpetration among male high school athletes (Casey et al., 2018; Graham et al., 2019).

Empowerment

Focusing on empowerment, one large-scale evaluation of self-defence and empowerment programs for girls found improvements in awareness raising, recognizing inappropriate behaviour and learning ways to keep yourself and friends safe (Jordan & Mossman, 2018). In another primary study, survivor empowerment training, advocacy, and prevention solutions to combat child sexual exploitation resulted in the incidence of self-reported sexually explicit behaviour reduced by half over time; dating abuse victimization also decreased (Rothman et al., 2019).

TABLE III Findings by socio-ecological level

Individual Level	Relationship Level	Community Level	Societal Level
Changing gender norms Empowerment Interventions to prevent FGM	Preventing adolescent violence	Theatre interventions School-based interventions Changing gender norms in the community setting Bystander programs Marketing Education and screening in healthcare settings Web and ICT-based interventions Education in the workplace Night-time environment Multi-agency approaches	Alcohol policy Legislative reform

FGM = female genital mutilation; ICT = information and communication technologies.

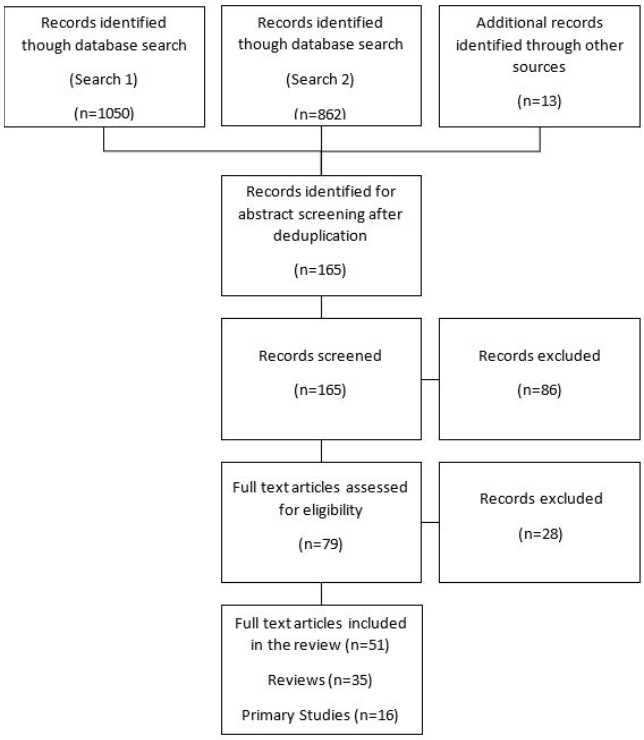

FIGURE 1 PRISMA diagram

Interventions to Prevent FGM

Successful approaches for the prevention of FGM included recognition of FGM as gender-based violence, providing clear preventive roles for frontline professionals, clear protection and prosecution approaches, and participation of affected communities (Baillot et al., 2018). One intervention which aimed to improve healthcare providers' capacity in the prevention and treatment of FGM found that midwives in the United States reported feeling more confident in the management of women with FGM (Balfour et al., 2016). However, no survivor-victim or population health outcomes were reported.

Relationship Level

Preventing Adolescent Violence

Two reviews focussed on a range of interventions aimed at tackling VAWDASV in the adolescent age range. Three interventions, "Safe Dates," "Fourth R," and "Shifting Boundaries" were found to have positive intervention effects on preventing IPV perpetration (De Koker et al., 2014). These findings are echoed in a further review which found that students in the intervention group of the "Safe Dates" study were less likely to be victims or perpetrators of self-reported sexual violence and "Shifting Boundaries" was effective in reducing self-reported perpetration and victimization (DeGue et al., 2014).

Community Level

Theatre Interventions

Applied theatre projects use a wide range of techniques and approaches that are generally participatory in nature and share the goal of creating social awareness and behavioural change with the audience. Such interventions can involve role-plays, playmaking with audiences, interactive workshops, and talk-back sessions. Theatre interventions reported positive outcomes in relation to creating awareness of IPV, reducing gender stereotyping, and encouraging engagement in nonviolent conflict resolution (Heard et al., 2020). A primary study also found that participants gained new awareness and understanding in relation to child sexual exploitation and abuse (CSEA) as a result of a school-based theatre program (May et al., 2020).

School-Based Interventions

In the school setting, program theories generally seek to encourage behaviour change through building skills and knowledge for healthy relationships and as active bystanders, and/or developing prosocial attitudes towards specific social norms (such as positive gender norms). The assumption is that this would change behavioural intention and, eventually, actual behaviour, with a resulting effect on the incidence of perpetration and/or victimization (Stanley et al., 2015). Four reviews focused on school-based interventions and found evidence of a positive effect of some programs. The "Fourth R" program resulted in a decrease in the perpetration of physical dating violence (Woolfe et al., 2009, cited in Stanley et al., 2015), and the "Healthy Relationships" program resulted in significant reductions in both perpetration and victimization of dating violence (Ellsberg et al., 2015).

Two other interventions, "Shifting Boundaries" and "Safe Dates," reported a reduction in adolescent dating violence (Ellsberg et al., 2015). These findings are supported by a further review which found that "Safe Dates," the "Fourth R" program, and "Stepping Stones" were studied in trials with the strongest evidence of effect in that they have the longest follow-up periods (2–3 years). "Safe Dates" was also strong in that it measured the widest range of forms of dating violence and was able to show the effects of several forms of violence which persisted over time (Lester et al., 2017).

Changing Gender Norms in the Community Setting

Gender transformative approaches in the community suggest that education for middle school boys can be successful at changing violence-related beliefs that are risk factors for the perpetration of harassment and sexual and dating violence. The "Reducing Sexism and Violence Programme – Middle School" was successful at changing violence-related beliefs that are risk factors for the perpetration of harassment and sexual and dating violence at the community level (Banyard et al., 2019).

Bystander Programs

Bystander programs focus on equipping people with the skills to safely intervene when they witness behaviours that can result in VAWDASV. In the educational setting (schools, colleges, and universities), bystander programs were overwhelmingly found to be promising, with evidence of a positive impact on changing attitudes and beliefs. However, the impact on behaviour was less clear cut. Seven primary studies evaluated interventions including the "Red Flag Campaign" (Borsky et al., 2018; Carlyle et al., 2020), "Green Dot" (Coker et al., 2019), "Bringing in the Bystander" (Edwards et al., 2019)

and "The Intervention Initiative" (Fenton & Mott, 2019). While studies were predominantly undertaken in university settings, one study indicates that the bystander approach ("Active Bystander Communities") can be transferred from student population to general communities and from sexual violence to DVA in the United Kingdom (Gainsbury et al., 2020).

Marketing

Also, within a university setting, one primary study evaluated the effectiveness of a 5-year marketing campaign, the "Social Norms Sexual Violence Prevention Marketing Campaign." The campaign focused on four overarching themes: consent, bystander, rape myths, and sexual activity. Results suggest the campaign was successful, resulting in reporting of less sexually aggressive behaviour and increased frequency of engaging in bystander interventions (Mennicke et al., 2018).

Education and Screening in Healthcare Settings

It is recognized that health professionals are ideally placed to identify VAWDASV through screening, to provide advice and support, and to signpost patients to further resources. For interventions undertaken in healthcare settings, evidence was mixed. In the primary care setting, most studies demonstrated patient-level benefit, with community referrals for IPV the most common, positively affected outcome (Bair-Merritt et al., 2014). In the Emergency Department, it was found that one-off training in isolation may improve staff awareness but has limited impact on clinical practice (Ansari & Boyle, 2017). Where interventions were implemented across a range of healthcare settings, findings were mixed, with one review finding no evidence that screening increases referrals or reduction in IPV (O'Doherty et al., 2014) and another that women did not show a reduction in IPV or improvement in quality of life (Feltner et al., 2018). In a further study, educational interventions were associated with improvements in knowledge and behaviours of healthcare workers despite inconsistent results (Sawyer et al., 2016). In one primary study based in the United States, no benefits were found for a home visiting program (Jack et al., 2019).

Web and ICT-Based Interventions

It is recognized that a barrier to IPV prevention can be related to the mode of delivery, and common barriers for victims wishing to initiate services include a lack of knowledge of community resources and fears about privacy (Anderson et al., 2019). In the healthcare setting, web-based approaches were found to demonstrate effective access to telehealth services such as online support groups for victims and changing behaviour expectations through educational programming (Anderson et al., 2019). Another review suggests that information and communication technologies (ICT)-based interventions had the potential to be effective in spreading awareness and in terms of IPV prevention (El Morr & Layal, 2020) and that participants were less likely to report experiencing physical IPV at follow-up (El Morr & Layal, 2019).

Education within Workplace Settings

One review outlined interventions to prevent IPV within the workplace setting by focusing on recognizing signs of abuse, responding to victims, and providing referrals to community-based resources. Findings indicate that there may be benefits in terms of increased knowledge and provision of information and resources, but strong evidence of effective interventions is limited at this time and further research is required (Adhia et al., 2019).

Night-Time Environment

In the night-time environment, studies focused on bystander interventions, awareness raising campaigns, and the role of alcohol legislation. It was concluded that to prevent sexual violence in the night-time environment, a broad suite of programs is necessary, including reducing excessive alcohol consumption, making the drinking environment safer, and having laws in place to ensure that inappropriate sexual behaviour specific to sexual violence is both discouraged and addressed (Quigg et al., 2020). A primary study evaluated "The Good Night Out Campaign," which provided training and guidance to workers on preventing and responding to sexual violence and found that awareness-raising was associated with greater readiness and confidence to intervene (Quigg & Bigland, 2020).

Multi-Agency Approaches

Multiple partnerships were shown to be effective in building a coordinated community response to VAWDASV, the most significant element of which was the comprehensive early intervention outreach/advocacy service. This service incorporated a wide range of community-based and women-centred interventions, as did other advocacy interventions that tended to adopt a more holistic approach. Overall, interventions that adopt an advocacy approach appear to have more impact and are more sustainable, and, when co-located with statutory or voluntary services, multi-agency working is enhanced (Cleaver et al., 2019).

Societal

Alcohol Policy

Overall, the evidence supports a consistent link between policies which increase the price of alcohol (or prevent low prices) and relevant health outcomes, including sexual violence perpetration (Lippy & DeGue, 2016). Several policy areas demonstrate initial evidence of a direct association with sexual violence, including those affecting price, outlet density, bar management, sexist alcohol marketing content, and alcohol bans on college campuses and in substance-free dorms. This evidence points to the potential utility of these approaches as part of a comprehensive sexual violence prevention strategy targeting individual and community-level risk factors for perpetration. However, more research is needed to better understand the nature of the association between those factors and sexual violence perpetration risk as well as the effects of specific policies on VAWDASV and sexual violence outcomes (Lippy & DeGue, 2016).

Legislative Reform

Two studies reference the impact of legislation on IPV, specifically the Violence against Women Act (VAWA) introduced in the United States in 1994. Findings indicate that areas which had received VAWA grants had significant reductions in the numbers of sexual and aggravated assaults compared with areas that did not (DeGue et al., 2014; Ellsberg, 2015).

Range of Interventions

Arango et al. (2014) present a review of reviews of evidence on reducing the victimization or perpetration of a range of types of violence against women and girls (VAWG). This review includes primary prevention of IPV in high-income countries, home visiting programs, and screening programs. It finds evidence of positive results in respect of primary prevention interventions, and that home visiting programs have the potential to reduce IPV, although this evidence is mixed. Also, while evaluations of screening programs found positive results for identifying survivors of IPV, there is no evidence that screening alone increased referral to support agencies.

DISCUSSION

The focus of this systematic evidence review was to address the research question, what works to prevent VAWDASV? The review was undertaken in two stages, a systematic evidence assessment of reviews of interventions designed to prevent VAWDASV and a supplementary search to identify primary studies published more recently and to encompass topics where the evidence base may be too limited to be the subject of a systematic review. Reviews (n=35) and primary studies (n=16) focussing on a range of types of violence and types of intervention were identified.

These findings indicate that there is a wealth of literature in terms of the prevention of VAWDASV, including several high-quality studies undertaken recently suggesting that the prevention of VAWDASV is feasible and can be effective. In addition to the prevention of the perpetration and victimization of VAWDASV, the included studies incorporate a range of outcomes in recognition that measuring changes in violence is challenging, especially over the short time periods of most projects. As a result, many studies assess attitudinal and behaviour change as outcomes, as part of a broader preventive theory of a change.

Implications for Policy and Practice

The studies highlight a number of factors which contribute to the success of interventions. These include intervention duration, socio-cultural relevance and mode of implementation. For interventions seeking to transform gender norms, the evidence indicates that more successful programs have a relatively long participant engagement time (Jewkes et al., 2014). In relation to bystander programs, results suggest that low-resource interventions have a modest effect on increasing bystander behaviour and higher resources were needed for a bigger impact (Borsky et al., 2018). The most effective strategy was found to be a multidose, multimode approach, tapping into various ecological levels as greater exposure to information and education yields better outcomes (Banyard, 2014; McMahon & Seabrook, 2019).

For interventions in school settings, it was also found that longer interventions delivered by appropriately trained staff, using multiple delivery methods, appeared more likely to be effective. With appropriate training and support, teachers are well placed to embed interventions in schools, with young people involved in the design and delivery of programs as part of a whole school approach (Cleaver et al., 2019; Stanley et al., 2015). It was also found to be important that interventions address the requirements of participants from a range of backgrounds, with one study highlighting a lack of materials designed for LGBT (lesbian, gay, bisexual, trans) young people (Stanley et al., 2015).

The use of online and social media platforms in violence prevention might resonate with younger audiences in countries with high internet usage (Graham et al., 2019). In the healthcare setting, the use of ICT-based interventions seems to be an attractive option for disseminating awareness and prevention information due to the wide availability of ICT (including mobile phones) globally. A major strength of mHealth IPV prevention programming is the ability to tailor interventions to individual needs without extensive human resource expenditure by providers (Anderson et al., 2019). Additionally, ICT presents an opportunity to deliver culturally sensitive multilingual interventions using consumer health informatics. However, there is a clear need to develop women-centred ICT design when programming for IPV (El Morr & Layal, 2020).

International bodies suggest the need for a comprehensive multi-sectoral long-term collaboration between governments and civil society at all levels of the ecological framework to secure a public health approach to VAWDASV prevention. In order to generate population-scale impact, an integrated, systematic model should be used in which there are multiple theory and evidence-based interventions implemented across the socio-ecology. All elements of the model must interact to develop a system which encourages safe, healthy, and prosocial behaviours and discourages and holds violent behaviour to account (DeGue et al., 2012, cited in DeGue et al., 2014).

This systematic evidence review demonstrates that there is a range of evidence for effective interventions to prevent VAWDASV across this multi-level approach. However, there are still gaps in the research which need further exploration, in addition to research into the ways in which these interventions may interact to reinforce behavioural change across the socio-ecology.

Strengths and Limitations

A strength of undertaking a systematic review of reviews is that it allows the creation of a summary of reviews within a single document (Smith et al., 2011). This review identified a substantial number of reviews, encompassing a range of types of VAWDASV and intervention types, and provides a comprehensive overview of key evidence in relation to what works to prevent VAWDASV. Additionally, using a two-stage search process enabled the identification of primary studies which had not been included in the systematic reviews, resulting in a broader range of studies being included.

However, the broad review question and relatively short time scale in which the review was conducted means that the search for evidence cannot be exhaustive and, consequently, certain topic areas may be missed. Further, all review methods risk generating inconclusive findings that provide a weak answer to the original question. Finally, the diverse methodological frameworks of the reviews and primary studies present challenges in terms of synthesizing data, presenting findings and drawing conclusions.

Further Research

While the literature is rapidly progressing in this field, there are still significant gaps. In this review, there are no interventions

in relation to the prevention of trafficking, VAWDASV among older age groups, or so-called honour-based abuse other than FGM. Additionally, concern was raised with respect to the quality of studies under consideration by a number of reviews, including a paucity of studies with impact evaluations over a long follow-up period, and a lack of trials conducted in UK settings, as opposed to the United States (Fenton et al., 2016; Kovalenko et al., 2020; O'Doherty et al., 2014).

While many interventions focus on change at the individual and relationship level and within community settings, there is less evidence for societal-level prevention, considered a critical gap in the field (DeGue et al., 2014). Further research is also needed in terms of specific forms of VAWDASV mentioned above, as well as how prevention programs intersect with the needs of individuals and communities who are LGBT+, Black, Asian and minority ethnic (BAME), older age groups, and those with disabilities.

The Impact of COVID-19

While the bigger picture of how the pandemic has impacted VAWDASV is yet to fully emerge, it appears likely that both the scale and nature of VAWDASV has worsened, with rising helpline contacts for all forms of VAWDASV and increased reports to emergency services (Hohl & Johnson, 2020). The rapidly emerging literature suggests that public health restrictions, including lockdown, shielding, and social distancing regulations have impacted rates of VAWDASV (Snowdon et al. 2020).

While traditional avenues of prevention, such as face-to-face interactions, are limited, new opportunities have emerged: multiple forms of media, online communications, and many community mobilization programs involve delivering activities virtually (UN General Assembly, 2020). A number of interventions use online platforms ("Real Consent" and "mHealth" screening tools), and these interventions may have particular relevance where face-to-face interactions may be limited.

CONCLUSION

The prevention of VAWDASV is both feasible and effective, with intervention literature pointing to numerous examples of effective and promising practice. Prevention programming should be undertaken using a multi-layered approach to create an "ecosystem" of interventions which prevent VAWDASV in different settings and contexts. Further evidence suggests the efficacy of program features include multi-agency and multi-dose approaches, well-trained staff, and long program length. There is an imperative to invest both in prevention programming and high-quality coordinated research to continue to guide efforts to prevent VAWDASV.

CONFLICT OF INTEREST DISCLOSURES

The authors declare that there are no conflicts of interest.

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APPENDIX: INCLUDED PAPERS

Author/Year	Study Type	Violence Type	Intervention Type	Setting	Population
Adhia 2019	Review	IPV	Education (co-worker)	Workplace (US)	Adults
Anderson 2019	Review	IPV	Web based or mobile	Healthcare settings	Adults
Ansari 2017	Review	DVA	Education (Health Professionals)	Healthcare	Adults
Arango 2014	Review	GBV	Range of Interventions	Range of Settings	Range
Baillot 2018	Review	FGM	Range of Interventions	Range of Settings	Girls and Women
Bair-Merritt 2014	Review	IPV	Education (Health Professionals)	Healthcare (Primary Care)	Adults
Balfour 2016	Review	FGM	Education (Health Professionals)	Healthcare (US)	Girls and Women
Banyard 2019	Primary Study	GBV	Changing Gender Norms	Middle School (US)	Boys
Borsky 2018	Primary Study	Dating Violence	Bystander Programme	University (US)	Students
Carlyle 2020	Primary Study	SV/DV	Bystander Programme	University (US)	Students
Casey 2018	Review	GBV	Changing Gender Norms		Boys and men
Cleaver 2019	Review	DVA	Multi-agency	Range of Settings	Range of ages
Coker 2019	Primary Study	Dating Violence	Bystander Programme	School (US)	Male and female students
De Koker 2014	Review	IPV	Range of Interventions	Range of Settings	Adolescents
DeGue 2014	Review	SVA	Range of Interventions	Range of Settings	Range
Edwards 2019	Primary Study	GBV	Bystander	School (US)	Students
El Morr 2020	Review	IPV	ICT	Healthcare Settings	Adults
El Morr 2019	Review	IPV	ICT	Healthcare Settings	Adults
Ellsberg 2015	Review	GBV	Range of Intervention	Range of Settings	Range (school age)
Feltner 2018	Review	IPV	Range of Interventions	Range of Settings	Range of ages
Fenton 2019	Primary Study	GBV	Bystander	University (UK)	Students
Fenton 2016	Review	SVA & DVA	Bystander	University (UK)	Students

Author/Year	Study Type	Violence Type	Intervention Type	Setting	Population
Gainsbury 2020	Primary Study	DVA	Bystander	Community	
Graham 2019	Review	SVA/Dating Violence/IPV	Range of Interventions	Range of settings (mainly US Colleges)	Boys and Men
Heard 2020	Review	IPV	Drama/Theatre	Community	13-40 years
Jack 2019	Primary Study	IPV	Healthcare/Home visiting	Community (US)	Pregnant low-income women
Jewkes 2014	Review	GBV	Changing gender norms	Range of settings	Boys and Men
Jordan 2018	Primary Study	GBV	Empowerment	Schools (New Zealand)	Girls
Jouriles 2018	Review	SVA	Bystander Programme	College Campus	Young adults
Kettrey 2019a	Review	SVA	Bystander Programme	College Campus	Young Adults
Kettrey 2019b	Review	SVA	Bystander Programme	College Campus	Young Adults
Kovalenko 2020	Review	Dating Violence	Bystander Programmes	Range including educational institutions	15-30 years
Lester 2017	Review	IPV	Changing Gender Norms	School	Adolescents
Levin-Decanini 2019	Primary Study	IPV	Education (Patients)	Health Care Clinic (US)	Adolescents
Lippy 2016	Review	SVA	Alcohol Policy	Range of Settings	Range
Lundgren 2015	Review	IPV/SVA	Range of Interventions	Range of Settings	Adolescents and young people
May 2020	Primary Study	CSE	Theatre Programme	School (UK)	Young People
McMahon 2018	Primary Study	SVA	Bystander Programme	University (US)	Students
Mennicke 2018	Primary Study	SVA	Marketing	University (US)	Students (Male)
Miller 2020	Primary Study	GBV	Changing gender norms	US Community	High school age (males)
Mujal 2019	Review	SVA	Bystander Programme	Range of Settings	Range
Njue 2019	Review	FGM	Range of Interventions	Range of Settings	Girls and Women
O'Doherty 2014	Review	IPV	Education (Health Care Professionals)	Health care	Women
Quigg 2020	Review	SVA	Education (workers in the night time economy)	Night-time economy	
Quigg 2020	Primary Study	SVA	Education/awareness/bystander	Night-time economy (UK)	NTE Workers
Rothman 2019	Primary Study	CSE	Empowerment	Community (US)	Teenage Girls
Sawyer 2016	Review	IPV	Education (Allied Health Care Professionals)	Health care	Adults
Stanley 2015a	Review	DVA	Education (School children)	Schools	Under 18 years
Stanley 2015b	Review	DVA	Education (School Children)	Schools	Under 18 years
Storer 2016	Review	DVA	Bystander Programme	College	Adolescents and young people
Wilson 2014	Review	IPV	Alcohol Policy	Range	Adults

ORIGINAL RESEARCH

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Narrative Health: Examining the relationship between the phenomenon of awe and resilience and well-being

Jeff Thompson, PhD*

ABSTRACT

Research has shown that experiencing awe can support people's well-being and enhance their resilience. A secondary phenomenological analysis was conducted of data collected from the Awe Project, a 5-day, online resilience program. Based on the existing literature, which demonstrates that reflecting on positive memories can support individuals' well-being, a practice during the Awe Project prompted participants first to define awe and then to share a personal awe experience. The results indicated that many of the participants' awe definitions and narratives were consistent with themes relating to previous awe research while new awe-related themes also emerged. Additionally, many of the awe definitions and stories included elements relating to resilience practices such as cognitive reappraisal, connectedness, gratitude, meaning and purpose in life, mindfulness, and self-efficacy. The results indicated that explaining awe and sharing awe narratives can potentially support people's well-being, and that being exposed to awe narratives may support this as well.

Key Words Storytelling; phenomenology; mental health; positive psychology; narratology.

INTRODUCTION

People experience stressors on a daily basis, and when they do not employ effective coping strategies, stress can become overwhelming and have an adverse impact on their well-being. An individual's ability to cope involves genetics as well as environmental and social factors. Each of these can both contribute to mental health conditions and act as protective factors that support well-being. Aside from daily stressors, the ongoing COVID-19 global crisis continues to cause concerns (CDC, 2022; COVID-19 Mental Disorders Collaborative, 2021; Czeisler et al., 2020; Butler, 2022), including requiring suicide prevention efforts (AFSP, 2020, 2022; Banerjee et al., 2021; Dycharme, 2022). These concerns are especially worrisome for those responsible for the well-being of others, such as first responders (Drew & Martin, 2021; Mehdizadeh & Kamkar, 2020; Papazoglou et al., 2021) and frontline healthcare professionals (De Kock et al., 2021; Gupta et al., 2021; Mehta et al., 2021; Søvold et al., 2021).

To develop and sustain one's mental health and overall well-being, having a variety of resilience practices is necessary (Bonanno, 2005). These practices must be both evidence-based and practical to increase their likelihood of use by those who would benefit, including the abovementioned first responders, frontline workers, and medical professionals, as well as the general public.

This study examines how awe narratives can be an evidence-based and practical way to support individuals' mental health and enhance their resilience. Previous research has established that experiences of awe and reflections on awe moments are a resilience practice that can also support other resilience practices such as awareness (mindfulness), cognitive reappraisal, gratitude, meaning and purpose in life, prospection, optimism, and others (Nelson-Coffey et al., 2019; Thompson et al., 2022; Thompson, 2022a; Thompson & Jensen, 2023).

AWE

Awe is a complex emotion that captivates people when they experience something or someone extraordinary and it challenges their current thinking (Stellar, 2021; Thompson et al., 2022). Based on the work of Keltner and Haidt (2003), awe is often described as having two elements: a sense of vastness

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and a need for accommodation (NFA). Vastness can refer to something physical or conceptual, while NFA refers to the need for a new mental schema due to the vastness of the awe experience. As discussed later this paper, the analysis suggests that NFA is not necessarily always present in awe experiences.

Awe has been associated with resilience (for example, see Tabibnia, 2020) as well as being a mindfulness practice (D'Ardenne, 2019; Thompson, 2022a). There are various contexts in which awe can be experienced: in nature and space, through music and the arts, with accomplishments (self and others), in religious and spiritual moments, and in social interactions (Allen, 2019; Anderson et al., 2018; Graziosi & Yaden, 2019; Pilgrim et al., 2017; Shiota et al., 2007; Thompson, 2022a). Furthermore, awe is not restricted to in-person experiences, as studies have shown that the following can be used to elicit this complex emotion: virtual and augmented reality, photos, viewing images and videos, listening, and reading (Fessell & Reivich, 2021; Magnan, 2020; Shiota & Greater Good Science Center, 2016; Thompson, 2022a; Walker & Gilovich, 2021). Table I further identifies how awe experiences emerge and their relationships with other resilience practices.

Another point of note is that awe is not limited to once-in-a-lifetime moments, such as exotic trips to far away, expensive locations. Researchers have also explained that awe can be experienced in daily, everyday moments (Graziosi, 2018; Schneider, 2009; Shiota, 2021; Thompson, 2022c, 2022d).

There are numerous resilience and well-being benefits for individuals when they experience awe. First, and primarily in this paper, the focus is on the positive attributes of awe; however, it should be noted that awe can also include negative elements such as fear and lack of control (Bai et al., 2017; Chirico & Gaggioli, 2018; Gordon et al., 2017; Guan et al., 2019; Piff et al., 2015). The benefits of experiencing awe include raising awareness of gaps in knowledge and seeking to fill them; creativity; connectedness with others; critical thinking; curiosity; finding meaning and purpose in life; generosity, gratitude, handling uncertainty and ambiguity; humility, mood improvements, and emotion regulation; open-mindedness; optimism; prosocial behaviors; social connectedness; and improvements in overall health (for more on the benefits of awe, see Allen, 2019; Thompson, 2022a, 2022c; Thompson et al., 2022).

TABLE I Awe categories, means, and relationships to other resilience practices

Categories	Means	Resilience Practices
Accomplishments (self and others)	Augmented/virtual reality	Agency (inspiring action)
Arts	Audio	Cognitive reappraisal
Music	Images	Connectedness
Nature	In-person	Emotional intelligence
Relationships (social connections)	Reading	Gratitude
Space	Video	Meaning and purpose in life
Spirituality/religion	Writing	Mindfulness
		Optimism (and hope)
		Self-compassion
		Self-efficacy

The benefits of experiencing awe are not limited to the moment when it occurs or to the person experiencing it. Awe and the other positive emotions and attributes associated with it can have a ripple effect after the experience has concluded (Thompson, 2022a). Awe is also known as a self-transcendent emotion (or experience), or a feeling of closeness, connection, and unity with everything that exists (Chirico & Yaden, 2018; Jiang & Sedikides, 2021; Li et al., 2019; Thompson, 2022c; Yaden et al., 2016). Self-transcendent emotions can have personal benefits, such as increased wellness, and they can increase prosocial behaviors, such as generosity towards others (Bai et al., 2017; Li et al., 2019; Piff et al., 2015; Rudd et al., 2012; Prade & Saroglou, 2016; Thompson, 2022a; Ying et al., 2016).

Previous research has also examined the impact of awe narratives. This includes evoking awe through reading narratives on vast landscapes and the accomplishments of others (Rudd et al., 2012; Walker & Gilovich, 2021), having research participants share personal awe narratives (Campos et al., 2013; Cuzzolino, 2021; Piff et al., 2015; Shiota et al., 2007), reflecting on awe narratives to promote resilience (Thompson, 2022c), showing how awe narratives can support leaders by creatively addressing issues (Thompson, 2022b), reflecting on previous awe experiences and sharing them with a group (Thompson, 2022a), and reflecting on daily awe moments as part of a gratitude practice during a multiday resilience program (Thompson, 2020).

Thompson and Jensen's (2023) work recently explored the relationship between experiencing awe and sharing awe narratives in relation to effective law enforcement hostage negotiation. Thompson's (2023a) work also established that sharing and reflecting on awe can be supportive of NASA's medical and mental health leadership, especially in terms of looking after the well-being of astronauts pre, during, and post mission. Additional work examined how incorporating awe narratives during resilience training for police homicide and special victim investigators had promising results, with participants stating it was supportive of their work and personal lives (Thompson, 2023b).

These studies have demonstrated that collecting awe narratives is an established method of research, that sharing awe narratives can support people's personal resilience, and that awe can also be experienced when being exposed to the awe stories of others.

RESILIENCE

Previous research has addressed the theoretical relationship between awe and other resilience practices while also practically explaining how awe has been incorporated into resilience programs (Tabibnia, 2020; Thompson, 2020, 2022a, 2023a, 2023b; Thompson & Drew, 2020; Thompson et al., 2022). Like awe, definitions of resilience vary and continue to evolve. This paper uses Thompson and Jensen's (2023) recent definition of resilience as a collection of proactive, ongoing, and responsive practices to enhance one's mental health and

overall well-being in response to experiencing stressful and adverse events.

As explained, resilience requires access to multiple practices that are used based on the situation or event (Bonanno, 2005). The various resilience practices, and specifically those related to awe, include cognitive reappraisal, gratitude, finding meaning and purpose in life, prospection, optimism, social connectedness, self-compassion, and self-efficacy (for a review, see Thompson et al., 2022).

Acknowledging that part of the human condition involves stressful and adverse life events is critical to enhancing resilience and overall well-being. This has been referred to as "acceptance" by Rick Hanson (2018, p. 17), and therefore it is necessary to find positive coping strategies, or "agency" (Hanson, 2018, p. 78), to handle such adverse life events proactively, thrive during them, and then recover in a way that supports one's well-being. This is the foundation of salutogenesis and positive psychology: developing and examining ways of human flourishing (Antonovsky, 1996; Seligman & Csikszentmihalyi, 2000). Sharing and being exposed to awe narratives are one such way to practice this, and it is further examined in the next section.

NARRATIVES AND STORYTELLING

As previously explained, awe narratives have been explored in multiple studies. Sharing narratives more broadly has also been studied to examine its numerous benefits on individuals' well-being (Adler et al., 2016), including contributing to both personal and social change (Rutledge, 2016). When examining developing personal narratives as a type of self-reflection practice, including through guided prompts, research has shown that it can support overall well-being, mental health, social connectedness, purpose in life, and self-efficacy (Agnew, 2022; Czyżowska & Gurba, 2021; Frugé & Drutz, n.d., Koshy et al., 2017; Strumm, 2022).

Individuals' narrative identities, or their evolving life stories, involve both their interpretation of the past and how they envision the future, which then contributes to their purposes in life (McAdams & McLean, 2013). Sharing meaningful narratives that include disclosing personal feelings and thoughts can support people's psychological and overall well-being (Frattaroli, 2006), increase self-awareness, self-efficacy, self-control, and openness with others, and promote better decision-making (Bauer & Bonanno, 2001; Dohan et al., 2016; Lilgendalh & McAdams, 2011; McAdams et al., 2004; Reese et al., 2011). When viewed as a form of expressive writing, personal narratives have also been associated with decreases in depression and anxiety symptoms, intrusive thoughts, and rumination, each of which has also been associated with suicidal ideation (Gortner et al., 2006; Klein & Boals, 2001; Lepore, 1997; Rogers & Joiner, 2018).

Personal narratives have been described as a powerful way to explain and explore science (Suzuki et al., 2018). Suzuki et al. (2018) examined the neuroscience implications of storytelling and the various parts of the brain that it impacts, while others have studied how storytelling can increase oxytocin levels and positive emotions while decreasing cortisol and pain (Brockington et al., 2021). Studies have shown that when nurses shared stories of personal growth during moments of adversity, it enhanced their resilience and social connectedness while also supporting improvements in patient care (Banks-Wallace, 1999; East et al., 2010). Relating Hanson's description of having a sense of agency to the concept of positive psychology and salutogenesis, Rana Awdish, a medical doctor who survived a near-death experience, explained the powerful impact our narratives can have on the one sharing them by stating that they "do more than restore our faith in ourselves. They have the power to transform" (Michigan Medicine Headlines, 2023, last paragraph).

More broadly, the practices of narrative medicine have been described as a model for effective medical practice, as they can provide a voice to the suffering and promote personal reflection on the part of professionals (Charon, 2001; Krisberg, 2017). Thompson (2023a) suggested that the benefits of narrative medicine can be employed more broadly, and importantly, in a proactive manner that is similar to other resilience practices. In this broader approach, he suggests the term narrative health when examining storytelling and listening in a manner to support people's well-being and enhance their resilience.

Further, from the perspective of sharing awe narratives as a form of promoting wellness for people being exposed to a story, these narratives have the potential to influence people by endorsing the behaviors and attitudes that are promoted in the narrative (Frank et al., 2015). Lisa Cron (2012) explained the power of narrative on the people being exposed to it, as "stories allow us to simulate intense experience without having to actually live through them" (p. 9) while Leo Widrich, citing Uri Hasson, stated that "a story is the only way to activate parts in the brain so that a listener turns the story into their own idea and experience" (Widrich, 2012, 6th paragraph). This demonstrates that narratives not only impact the individual sharing them but can also be transformative for the people being exposed to them (Peterson & Boris, 2017; Thompson, 2022c).

A recent study gave an example of the profound impact that narratives can have by demonstrating a reduction of suicidal ideation in people who were exposed to stories of others working through their own suicidal thoughts (Franz et al., 2022). It has also been posited that the benefits of storytelling are experienced just as much by the listener as by the teller (Frank et al., 2015; Pallai & Tran, 2019). Additionally, such listening can also motivate those being exposed to the narrative to reflect on their personal lives (East et al., 2010; Frank, 1995; Thompson, 2022a; 2023b). Further research (Zak 2013, 2015; Barraza & Zak, 2009) has shown that people being exposed to narratives can increase their empathy, generosity, and social connectedness.

Research and practices have recently begun combining the concepts of narrative health with awe and other related resilience practices (Thompson, 2020; Thompson & Drew, 2020; Thompson, 2022a, 2022c, 2023a, 2023b; Thompson & Jensen, 2023).

METHODOLOGY

This is a qualitative research study that specifically used phenomenological methodology to guide the analysis and presentation of the data. This study was also guided by previous research studies (as cited in the previous section) that have examined awe, awe narratives, and secondary analysis of awe-related data. The secondary data analysis and theme

development were informed by phenomenological methodology and specifically interpretative phenomenological analysis (IPA). Phenomenology is a qualitative methodology that involves examining how people experience a phenomenon (van Manen, 1990), while IPA emphasizes the role of the researcher in interpreting the data and developing themes (Frechette et al., 2020; Smith & Osborn, 2003; Smith et al., 2009).

The purpose of this study was to gain access to participants' lifeworlds (Husserl, 1989) and their experience of phenomena in their everyday lives (Wheeler, 2011). Heidegger explained that this examination of the human account is not separate from the world, but instead amongst it and immersed in it (Brooks, 2015; Galanti Grollo, 2022; Wheeler, 2011). This phenomenological study is an examination of awe in relation to how participants live within the world, how they experience awe, and how they derive meaning from awe-related experiences (Brooks, 2015). This type of examination analyzes numerous participants' awe narratives while not losing focus on each individual's interpretation of the phenomenon being examined (awe). This process allows for themes to emerge when analyzing the whole, and it can only occur through interpreting individual accounts. This has been described as the hermeneutic circle, in which the researcher must interpret the statements made by individuals, make meaning of them, and finally, establish themes (Frechette et al., 2020).

Importantly, the themes are derived from the researcher's understanding of the phenomenon being studied as well as through analysis of the data. Although previous studies guided the framework for the data analysis and theme development, it is also important for the researcher to be open-minded, as the data can confirm or contrast with previous themes and new themes can also emerge.

This study's purpose was to examine awe through the participants' narratives and to gain a deeper understanding of their experiences of the phenomenon, awe. Accordingly, it explored the following questions: (a) how do participants define and explain awe? (b) what are their experiences of awe? (c) are there themes, and if so, are they consistent with previous research? and (d) do the shared awe narratives incorporate other resilience practices that can support their well-being?

Data

The dataset comprised 435 participants. IPA research suggests that the group being examined be homogenous (Smith et al., 2009). For this study, although participants came from diverse backgrounds and professions and resided in numerous countries, they are homogenous in that that they took part in a resilience program called the Awe Project between 2021 and 2023 in 35 cohorts. The Awe Project is a 5-day resilience program that participants access through a private Google class page on their mobile devices, where, twice a day, they engage in the following practices: undertaking a 1-minute breathing practice, watching a short awe-related video, and answering two questions and sharing their answers with the group. The first question is related to the video and the second question is a broader resilience question (for more on the program, see Thompson, 2022a).

Participants were asked to complete a pre-program survey that included 11 questions. The secondary analysis examined the following three questions: (a) how would you define awe? (b) how would you describe what it is like to experience awe? Be as descriptive as possible (not by giving an example but by explaining what it is like when experiencing awe), and (c) after taking a few minutes to think about a particular time, fairly recently, when you felt intense awe, describe a single experience of intense awe in about 2 full paragraphs. Participants were asked to focus as much as possible on the experience itself, rather than what led up to it, what happened afterwards, or their interpretation of the experience, and to be as descriptive and specific as possible. The development of the three questions was inspired by and adapted from previous narrative awe studies (Campos et al., 2013; Krenzer et al., 2020, Piff et al., 2015). Finally, participant responses to the pre-program prompt to share their definition of awe with other participants in the Google Classroom were also included in this analysis.

Analysis

Interpretive phenomenological analysis (IPA) has been described as not being a prescriptive methodology but a way of supporting studies by previous research, guidelines, and suggestions (Smith & Osborn, 2004; Thompson, 2023a). Therefore, the following methodology for analysis, which is also informed by previous studies, including secondary analysis of awe data, was created specifically for this study (Bonner & Friedman, 2011; Thompson, 2022a). Each of the awe definitions and narratives was read multiple times and then entered into a spreadsheet. They were coded for awe topics to assist with the interpretation of the data and theme development. Importantly, this was not done to identify potential statistical, quantitative significances, as this study is grounded in qualitative methodologies. This type of IPA, and generally phenomenology and qualitative research as a whole, is more concerned with finding significance in the quality of the data and not finding meaning by achieving a certain number of participants, so the sample size was comparatively small. As the data were reviewed, themes were informed by, but not restricted to, pre-existing awe themes, especially those involving narratives (Bonner & Friedman, 2011; Cuzzolino, 2021; Thompson & Jensen, 2023; Thompson 2022a, 2022c; Thompson 2023a, 2023b), as well as through interpretation of the current data.

RESULTS AND DISCUSSION

Consistent with previous IPA suggestions, as well as studies conducted on awe and resilience, the results and the discussion are provided together (Smith et al., 2009; Thompson, 2022a; Thompson & Jensen, 2023; Thompson, 2023a, 2023b). First, the participants' explanations of awe are examined. This is followed by demonstrating the complexity of awe by analyzing a specific narrative, and then examining the themes that emerged.

Awe Defined

Since awe has been defined as being a complex emotion, it was not surprising that participants frequently shared that it is not easy to explain:

> I would have to say that in those [awe] moments, I have felt like such a tiny speck in this beautiful mystery of life. Like I just couldn't have imagined the beauty, sounds,

> or the smells … the extreme joy or satisfaction. How amazing was the thrill. My heartbeat racing. How if felt against my skin. Awe is an amazing thing … sometimes words just doesn't do it justice.
>
> An indescribable feeling.
>
> Your body metaphorically freezes; your mind is in slow motion yet so many things are racing through it filling your brain with emotions you can't explain.

The following participant elaborated that awe's complexity is not limited to being unable to articulate it into words or emotions; it also creates this inability cognitively: "A feeling of wonder, by witnessing beauty that defies understanding."

Not all the participants were hindered in their attempts to define awe. Some were able to offer precise, detailed, and poignant definitions. Table II provides participants' examples of how awe can be positive, ambiguous, humbling, captivating, extraordinary, self-transcending, and challenge individuals' thinking, among many more, as reflected in the previously provided definition and attributes of awe.

As awe increasingly becomes a topic of research, it is understandable that there will be various definitions. Importantly, given the historical understanding of awe and how it has been described, and changed, over time (Allen, 2019), it should be expected (and embraced) that (a) awe does not require a singular definition and (b) the definition should adapt as it is further experienced and studied.

The Complexity of Awe Narratives

Awe narratives can include numerous, intense emotions and challenge a person's current thinking. The elements of this complexity were shared by many when defining awe, including the following explanation:

> It's like being ravished by emotion. Seeing and experiencing something that extends beyond what words can adequately describe. Sometimes, it forces a sense of cognitive dissonance where my mind is telling me that everything is dark and gloomy and then there is this absolutely incredible thing or experience right there in my life and I never want it to end. Awe takes me back to my childlike state where curiosity and wonder are second nature. It's beautiful.

The following narrative demonstrates how a nature-based awe experience involves numerous other awe attributes too, including a spiritual component:

> As I was driving through Pennsylvania, the mountains that surrounded me were mammoth. As I looked out the window, I noticed how green the leaves on the trees were. So green, vibrant and beautiful. I thought about what was out there. All of the unexplored territory. I was at peace. We climbed one side of the mountain and down the other. I felt much more spiritual and even thought what heaven might be like.
>
> My mind wandered and I wanted to soak in the sight. I wanted to burn it into my memory so I could recall it at a later date. I am not sure why I found it so breathtakingly beautiful, but I just couldn't imagine how the mountain was formed, which led to more questions about the infrastructure and the road crews who worked long hard hours to build a road.
>
> My mind then switched to my career and I questioned if I would ever be able to work a construction job. I remember thinking how hard that must be.

The preceding story demonstrates the complexity of an awe narrative. In Hartog et al.'s (2017) theoretical model of narrative meaning making, reflecting and sharing narratives like the one above can, for the person sharing it, create new meaning in that person's life, especially when it raises existential questions. In this case, that included contemplating heaven, how the mountains were made, and the person's own personal abilities. The complexity of awe is further demonstrated in this narrative, as one type of awe elicitor can be a gateway to numerous other awe elicitors and to other positive emotions, and it can overlap with other resilience practices.

Using a narratology approach, this awe experience is examined through its structure: how the story is created, how it is perceived, and how it influences (Martine, 2019). In this particular narrative, and as illustrated in Figure 1, the story's awe elicitor is being in nature, while there is much more occurring. First, the individual experiences a sense of smallness (humility) that leads to feeling immersed in the moment (mindfulness). Next, a spiritual affiliation is evoked, opening the way to a sense of uncertainty. This uncertainty results in a curiosity about the nature of and human contributions to the narrator's awe experience. Finally, the curiosity prompts self-reflection.

It is important to note that this narrative, while demonstrating the complexity of how a single awe story can include numerous awe attributes, includes a concluding self-reflection. Based on the seminal work of Keltner and Haidt (2003), there

TABLE II Definitions of Awe

Awe is grandeur that exists outside [of] or (and) beyond oneself.
Awe is something that causes you to pause and recognize that which is greater than oneself. Something that creates a sense of peace in an otherwise turbulent world. Awe is that which makes what may be causing you strife seem much more insignificant. Awe for me is a pure perspective adjuster.
Awe can be defined as a strong feeling of amazement, admiration, or reverence for something or someone.
For me, to experience awe is to acutely (and simultaneously) be aware of how small and large you are in the whole scheme of life; it's both humbling and astounding. Most often, it gives the feeling that you are something small in a vast, undefinable, intricately designed thing—and that's okay.
A moment that makes you stop thinking of anything other than admiring something. It invokes immediate mindfulness.
A trigger that brings me outside of myself and the daily tasks and routines; forces humility; creates a sense of wonderment and optimism.
My definition of awe is an event or experience (almost always positive) that was unexpected (or unexpected in its magnitude) evoking a lot of feelings that—at the time—can be overwhelming, but you know at that moment that you will remember this event or experience for a very long time, if not forever.

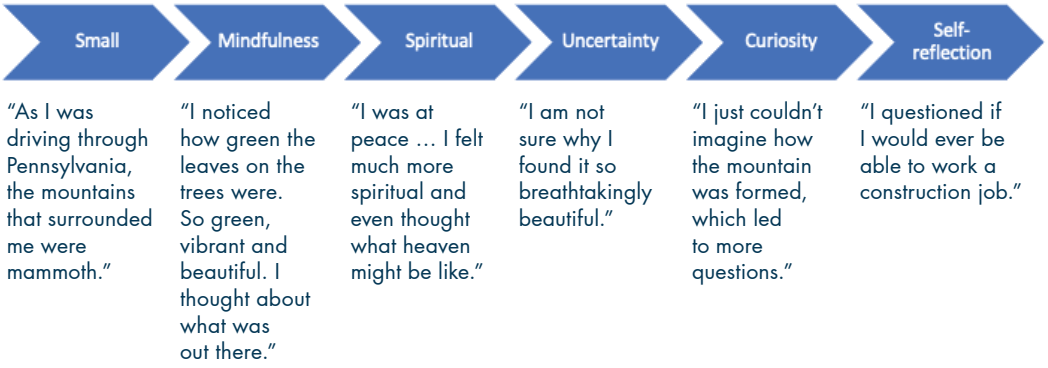

FIGURE 1 The Complexity of Awe

are two critical components of awe: a sense of vastness, which then leads to a term described as an NFA. This refers to individuals experiencing awe needing to reshape their current understanding of the world. The data in this study suggest that it is not just a reshaping of one's understanding of the outside world, but of oneself too. Further, based on the above narrative, it is possible that NFA does not occur in every instance of experiencing awe. Instead, in the above narrative, the individual engages in a self-reflection practice to try to gain an understanding and meaning of the vast awe experience. This is further discussed in the section on uncertainty and ambiguity.

Narrative Themes for Awe

Phenomenological research, including IPA, is concerned with individuals' experiences of a phenomenon, while the data are analyzed and interpreted collectively so that themes emerge. Through these themes, a greater understanding of participants' experiences can arise.

Tables III and IV identify the themes that emerged from the participants' definitions and stories. In total, 33 themes and 22 sub-themes emerged. The number of themes that emerged is notable yet not surprising. Phenomenology, and specifically IPA, guided the analysis, and considering they are not prescriptive methodologies (Miller & Minton, 2016; Smith & Nizza, 2021; Smith & Osborn, 2003), the analysis was not limited to a predetermined or fixed number of themes. Further, the analysis of this study's data and resulting themes are comprehensive, but they should not come across as unexpected, as they are consistent with themes that have emerged from previous awe and resilience research (Bonner & Friedman, 2011; Cuzzolino, 2021; Thompson & Jensen, 2023; Thompson 2022a, 2022c, 2023a, 2023b). What this study has done is uniquely brought many of them together, and each is supported with an excerpt as shown in both tables.

Table III expands on the broader categories of Table I and the definitions of awe from Table II. In an attempt to explain a complex emotion such as awe, the researcher constructed the table with two columns. The first column identifies the categorical themes, which expands on the list originally detailed in Table I. Importantly, the data analysis identified additional categories beyond what previous research has established. To support the categories, the second column offers an example from the participants.

Formatted similarly to Table III, Table IV identifies the effect awe had on the participants while it also highlights that awe can serve as a gateway to other resilience practices (Thompson & Jensen, 2023).

Collectively, Table III and Table IV are the result of what phenomenology, especially IPA, is designed to do: examine a phenomenon through the people directly experiencing it (Column 2) and then interpret it (the themes in Column 1). In IPA, this has been described as a double hermeneutic, where the "researcher is trying to make sense of the participant[s] trying to make sense of what is happening to them" (Nizza et al., 2021, p. 23). Importantly, the second column demonstrates how the themes emerged directly from the participants' statements, as phenomenology is concerned with how individuals experience the phenomenon. Previous phenomenological researchers suggest using extensive raw data (participant excerpts and quotations) to support the development of themes (Miller & Minton, 2016; Pietkiewicz & Smith, 2014).

The two tables demonstrate the complexity of both the themes and the narrative excerpts. While some research attempts to isolate certain elements or elicitors of awe, in reality, it is often, yet again, complex, as multiple themes are contained in one experience of awe. For example, the theme *alone* listed in Table III and its corresponding example also involves other themes such as nature, gratitude, water, and mindfulness. This supports this study's emphasis on the value of using qualitative, and specifically phenomenological, methodologies to examine awe. This is not to diminish quantitative research—both are needed—yet this example demonstrates that awe is more than statistical analysis of how frequently a certain theme is experienced when trying to determine awe's significance and impact on people. The significance of awe is first the experience of the individual, and it then moves beyond the individual, and because of the thick data qualitative research is able to collect, the researcher's analysis and interpretations reveal the themes.

Experiences of awe, as disclosed in the narratives and definitions, can be both something that surprises someone in an unexpected manner, which are often in once-in-a-lifetime-moments, while conversely it also can occur in everyday moments including when an intentional perspective is taken. This yet again illuminates the complexity of awe, and it is through the narratives that we are further able to understand and interpret these serendipitous awe moments, as well as

TABLE III Narrative themes for awe: Awe categories

Theme (Listed Alphabetically)	Example
Accomplishments	
Birth	
Being Present	Being in the delivery room and witnessing the birth of my son was a beautiful and incredible experience for me.
Giving Birth	When I had my … I remember immediately crying and taking a deep breath. I was overwhelmed with gratitude.
Exercise	My wife and I run very early in the mornings and at times we are running as the sun comes up.… I had a feeling of being blessed. I am healthy enough to be able to be out seeing and having this experience.
Flying	I sat quietly on the plane, looking out over the Rockies as we approached the destination and just breathed it all in … literally and figuratively… It was a really cool moment, one that I'll never forget.
Man-made	I felt small and insignificant next to the bridge, and I felt pride at the fact I live so close to such an amazing and iconic structure that stands proud and strong despite the relentless rail traffic crossing it every hour.
Others (close)	My middle child is autistic, I have watched him work hard and overcome so much. When he graduated high school with honors in the middle of a pandemic, I was in awe of him.
Others (strangers)	Watching a documentary on WW2 with vets from Normandy. I felt inspired, humble, and honored to hear their stories, and their sacrifices made me want to be a better person. I also felt proud that such bravery and selflessness existed in humans.
Self	Watching my son run down the boardwalk in the rain.… I was so proud to be his dad and [it] almost brought me to tears.
Travel	It was like an up-close experience of something I normally wouldn't be able to see coming from [location] and because of that, I was lost for words.
Technology	Flying above the clouds in a metal machine that many just accept as part of life has never ceased to amaze me. Here I was thousands of feet above the earth, closest to the stars I'll ever be, at the mercy of this machine.
Alone	I was sitting on the beach alone. There were other people there, but I was blissfully by myself.… Being alone … is an immersive experience.
Connectedness	I felt suddenly a great relief as I realized I am a part of a much bigger world.
Personal Relationships	The intense feeling of that deep family love connection made everything around us fall away, all I could feel, see, smell was my family. It felt like the three of us were in a bubble and nothing could touch us.
Pets	It was something so simple. I was away from home for a few days and my dog was so happy to see me when I got home.
Nature	I felt very much at one with the rain, the green, the river, and with myself.
Music (and the Arts)	Classical music orchestra concert.… I'm close enough that it is like I actually feel the music touching me. It's just incredible that they can all separately create this beautiful piece of music.
Nature	I thought of how vast the world is and [was] fascinated by nature.
Beach	Taking a ride down to the beach, listening to the waves crash under the sky full of stars and the moon shimmering down. It's the calmness the ocean brings.
Mountains	I thought about how vast the land of the mountains is and how powerful and big it looked.
Sounds	I realized I was listening to the birds singing. I stopped and closed my eyes and took a deep breath.… I felt such a sense of appreciation for these little birds singing. Their singing made me feel joy, a new fresh start, and appreciation to be able to walk and listen, live in the moment.
Sunrise/Sunset	The sunsets have been absolutely beautiful lately, and the other day I was driving home. The sky was cotton candy pink and blue, and it looked so beautiful.… It was exactly what I needed—I felt relaxed, at ease, and calm.
Trees	Especially being surrounded by green and trees and the music of nature.
Water	I dove down into the warm waters; I could never have imagined the beauty that was awaiting me.
Ordinary Moments	I was able to enjoy the beautiful landscape, and although I see it every day, it never seems to get old.
Rare Moments	I knew this was "once in a lifetime."
Space	I felt that the universe was utterly immense and that I was a part of it all.
Spiritual	I felt like I was connected to a higher power.

TABLE IV Narrative themes for awe: The impact of experiencing awe and serving as a gateway to other resilience practices

Theme (Listed Alphabetically)	Example
Beauty	It was nature at its peak, and it felt beautiful.
Cognitive reappraisal	I felt suddenly a great relief as I realized … that my once big problems were now minimal.
Negative experiences	We lost [died] a family member.… The younger cousins are all under 7 years old and they didn't understand at times why we would be laughing and then crying, so at one point one of them came over to me and just gave me a big hug and kiss on the cheek, and that made me feel pure happiness. This 7-year-old didn't know what pain and loss were, but he knew how to console and make someone feel loved. That brought awe to the whole room.
Connectedness	I felt suddenly a great relief as I realized I am a part of a much bigger world.
Curiosity	My mind tries to comprehend or understand how such a thing could exist, or appreciate how much work went into it. It sometimes seems magical, like this could not have been created by human hands.
Empathy	I was watching a video of a female African American country singer who was snubbed by country radio stations that did not want to play her song. First, I was struck on how beautiful her voice was. Then I heard the lyrics. They describe[d] how it felt for her to be African American and the challenges she faced. I felt a connection to her message.
Emotional intelligence	I felt a rush of emotion and just sat with it.
Gratitude	The whole time I was just trying to absorb it all, remember it, appreciate it; grateful for the life I have, grateful to experience everything.
Humility	Looking up at all the stars, thinking about how long they've been in existence and marveling about how we can see them even though they're so far away is truly humbling.
Intensity	I literally could not think of anything else because my heart was overwhelmed with all the beautiful nature I was seeing.
Learning/Filling knowledge gaps	I experienced intense awe while I was on a ferry. My sense of wonder on how a boat can carry such weight; when I go in the water I will sink. This feeling made me thirsty to understand the science behind the concept.
Meaning and purpose in life	A calmness; clarity; stillness. In a good way, I feel small. Almost as if the universe is reminding me there is a bigger picture here. And how I contribute to it matters. Even if that means stopping and breathing. Taking inventory of what matters.
Mindfulness	I felt like we (the people in the room with me) were the only people in the world; everything and everyone else stopped and did not matter.
Open-mindedness	I have the opportunity to see things from different perspectives.
Physicality	I also felt a surge of energy, and at times I ran as fast as I could down the trail. I guess I almost felt stronger physically by the experience as well.
Profoundness	I'm flooded with awareness of the world around me, usually how great or beautiful or complex it is, and my place in it. It feels exciting and humbling. I feel like my awareness is only scratching the surface of what's out there.
Prospection (hope and optimism)	Gives me hope for the future and also perspective about things.
Self-care	I … managed to understand how important it was for me and how incredible it felt to do something for myself.
Self-efficacy	The experience was breathtaking. I felt so inspired and like all my problems had taken a back seat and I could do anything. I also felt so happy, a feeling similar to love. I felt confident, strong.
Self-transcendent experience	I felt joyful and happy and I felt like I wanted to spread that joy to everyone around me.
Smallness	I felt like I was a part of nature and still reminded how small I am yet how my decisions could affect life.
Speechlessness	I couldn't possibly obtain the words to properly describe the experience; maybe that was better.
Toleration for uncertainty and ambiguity	I just couldn't imagine how the mountain was formed, which led to more questions.
Transformation	For the last 12 years or so, I've felt numb to emotion and very few things make me feel fully alive, but this moment in time, moment in space, I felt one with the universe and I had no words, just teary eyes from not wanting it to end.
Vastness	Something that gives us perspective, something that allows us to grasp for a moment the vastness and beauty of the world we live in and our place in it.

those occurring in people's everyday lives (Martine, 2019). The next two sections explore this further, and they are followed by a greater examination of some of the themes from Table IV.

Uncertainty and Ambiguity

As previously explained, and as based on the seminal work of Keltner and Haidt (2003), two elements are often incorporated into describing awe experiences: a sense of vastness and an NFA. One participant elaborated: "When at first something didn't make sense but after looking at it with a different perspective you see it with more clarity."

Yet based on the analysis of the definitions and stories shared, in some instances the NFA did not exist, while there was an acknowledgement of not fully comprehending what was occurring. This has also been referred to as identifying knowledge gaps (Chirico & Yaden, 2018; McPhetres, 2019). The following examples display this acknowledgement while also revealing uncertainty:

> A feeling of wonder, by witnessing beauty that defies understanding.
>
> Like you are aware of the fact that you are something small in a vast, unknowable (yet beautiful, intricately designed) thing.

Awe moments were described as being magical and unexplainable, and for some participants, NFA was not expressed. In addition to awe revealing gaps in knowledge along with uncertainty, it has also been associated with ambiguity. Many of the participants expressed this sense of ambiguity:

> An experience of awe is to acutely (and simultaneously) be aware of how small and large you are in the whole scheme of life; it's both humbling and astounding.
>
> I feel insignificant and significant at the same time.
>
> It is a sense of calmness and euphoria.

Importantly, these comments demonstrate that experiencing awe involves feeling ambiguity and uncertainty in the moment, while it may also have a lasting effect to support the participants in other moments in their lives when experiencing both uncertainty and ambiguity.

Extraordinary and Ordinary Moments of Awe

Awe researchers Marianna Graziosi and David Yaden (2019) explained that awe moments can be ordinary responses to something (or someone) extraordinary or extraordinary responses to something ordinary. Table V elaborates on this concept by providing definitions and narratives shared by participants.

TABLE V Extraordinary and ordinary awe

Definition	
Awe is a sense of wonder and amazement. It can be a response to something ordinary or extraordinary.	
Definitions	
Extraordinary	**Ordinary**
Being in awe to me is being in complete amazement or disbelief of something that has occurred.	To me, experiencing awe is an intentional act, otherwise the moment or experience passes you by.
Viewing something amazing that stops me in my tracks. Something that is sublime and beautiful.	My favorite saying is "enjoy the little things in life for someday you will realize they were the big things." Awe moments are often those little things.
Awe is being amazed by something either so small or large that is so memorizing. A real WOW moment.	A spontaneous moment in which one acknowledges and appreciates the beauty of [one's] surroundings, and/or the people within them.
Examples	
The most intense awe I have felt somewhat recently is watching my nephew being born. I was there for the entire labor process and it pained me to see my sister in pain but the moment of birth was priceless. It brought me to tears and left me speechless. It really is like watching a miracle. I felt a burst of emotions all at once. Appreciation and respect for my sister, my mother, and life itself. When I was asked to cut the umbilical cord, I wanted to savor the moment and make sure I never forgot it. I have an appreciation for life and mothers already, but this moment increased it tenfold.	It was something so simple. I was away from home for a few days and my dog was so happy to see me when I got home. I couldn't put down the items in my hands quick enough. My dog just ran me over and began to dance all over me and lick my face. It was such a feeling of acceptance and joy. I didn't want the moment to stop because I was so happy in it. It put a smile on my face and just picked my mood up. That mood carried over even after the incident stopped.
Climbing down Pikes Peak, Colorado, it felt like there was something amazing around every turn. Everything from the view from that high, to the foliage, the quiet, the drop-offs from the side of the mountain was intense. Kind of like suddenly my eyes were open and I was seeing everything more acutely or vividly.	Saturday morning, while getting ready for work I noticed a very thick fog [so] you couldn't see the mountains, but the fog was beautiful. It put me thinking about my day and although I'm not a fan of heading in on a Saturday I was able to enjoy the beautiful landscape and although I see it every day it never seems to get old. Daily experiences of awe are all around and I get to experience it. And I am grateful for that.

The examples in Table V show how both ordinary and extraordinary situations can create awe moments. Often, extraordinary awe moments can be surprising and catch people off-guard. However, every day, ordinary awe experiences can require intentional and purposeful perspective-taking. Contrastingly, Kirk Schneider (2009), an awe researcher, cautions awe-seekers to avoid seeking out awe moments and, instead, be open to the opportunity of experiencing them. The definitions provided for the extraordinary and ordinary awe moments capture these two approaches.

Many awe narratives are linked with other resilience practices. The following story demonstrates how a purposeful approach to an ordinary moment can involve awe and resilience practices such as cognitive reappraisal and gratitude:

> The last experience would be dinner with my wife. I took her to a Korean BBQ place. I felt happy that I got to take her on a new experience, even though we were told it was going to be a long wait and they were training a new server. In that moment, we didn't worry about the stresses. We were just together, having fun, and everything we had been going through together wasn't there or the focus.
>
> We were enjoying each other, and that entire time was just an awe experience. I just felt a lot of happiness and remembering how all the things that have happened really wasn't something we needed to carry every day. I was able to relax and be present, all of me.

This awe narrative demonstrates that, in addition to cognitive reappraisal and gratitude, other relationships to resilience practices also exist. The following section elaborates on this.

Awe and Real Resilience

Practices in resilience are not necessarily designed to make life's stressors vanish, as often they occur beyond individuals' control; therefore, proactive preparation is a more realistic approach, having strategies to manage stressors and adverse events, and techniques to support recovery. As previously discussed, Hanson's terminology on acceptance and agency presents a real (or practical) approach to resilience. Many participants demonstrated this perspective by realizing how taking the time to experience and reflect on awe can help them in handling their daily stressors:

> A sense of amazement and overwhelming wonder that transports you from the everyday.
>
> Even though rough things happen daily, we need to see the beauty in every day. Find the positive … try to see beauty in everything and everyone.
>
> Something that creates a sense of peace in an otherwise turbulent world.

The above excerpts, along with those previously shared that demonstrate that awe elicits experiences of uncertainty and ambiguity, offer insight into how awe can provide individuals with momentary positive experiences that give them important breaks from daily stressors as well as potentially supporting them in handling stressors as they arise. The following participant further connected this with well-being:

> Awe can act as a "boost" to the spirit. Just as a car can be brought back to life with jumper cables, a moment of awe leaves one feeling energized, uplifted, and restored. I suspect that awe has a healing effect—potentially alleviating the impact of cumulative stress that manifests as fatigue, isolation, and diminished hopefulness.

The above statement supports previous research that suggests that in addition to supporting individuals' overall well-being, awe can potentially help counter risk factors for mental health conditions and support suicide prevention efforts (Chirico & Gaggioli, 2021; Thompson 2023b).

CONCLUSION

Reflection, storytelling, and sharing narratives can aid the development of personal resilience, and they can also provide opportunities for others when they are exposed to these narratives. The experience of awe can be different for each person. This study has examined personal awe experiences, and through these examinations, themes have emerged both confirming those that pre-exist as well as new ones, providing a deeper understanding of this complex emotion and the role it can have in supporting personal resilience. As demonstrated in the analysis, awe moments can be described as being extraordinary or ordinary, transformational, and supportive of one's well-being. Through these awe definitions and experiences, the narratives and themes can provide a foundation for future studies, including measuring the impact awe has on both the person sharing the narratives and those who have access to these stories.

The intentional design of this paper was motivated by the need to improve people's well-being. Often referred to as translational research, this work was intended to "to advance discoveries, knowledge, and innovation to improve human health" (Thompson et al., 2022, p. 616). This paper, especially the tables, was designed to be accessible and meaningful to researchers conducting future studies, but also, importantly, to others beyond academia, including those who design and teach resilience, mental health, and well-being courses, as well as to individuals. For this second group, the awe themes have been provided in a straightforward manner in the tables, importantly including narrative examples that can be used by, and potentially inspire, others.

The limitations of this study are that it is just one qualitative approach among many, which needs to continue, along with quantitative research, to examine the potential impact awe can have on supporting the mental health and resilience of both the person experiencing it and to the person hearing it. Considering the immersive role of the researcher in phenomenological research, the author can validate the personal, positive impact the study had and can further support the promising role of awe in narrative health to support the well-being of individuals and groups.

CONFLICT OF INTEREST DISCLOSURES

The author has no conflicts of interest to declare.

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ORIGINAL RESEARCH

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A meta-analysis of the effect of violence intervention programs on general and violent recidivism

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ABSTRACT

Individuals with convictions for violence are likely to have both violent and nonviolent subsequent reoffences. Individuals who have committed violent offences are often required to participate in violence treatment programming prior to release. The aim of this study was to examine whether violence intervention programs offered in community or institutional correctional settings are effective for reducing general and violent recidivism among individuals with previous histories of violence. In total, 21 controlled studies with data from 17,223 violent offenders (99% men) were included in the meta-analysis for general recidivism, and 19 controlled studies with data from 8,863 offenders (99% men) were included in the meta-analysis for violent recidivism. This article extends an earlier meta-analysis by Papalia et al. (*Clinical Psychology: Science and Practice*, *26*(2), 1–28 [2019]) by adding seven new studies to the meta-analysis of general recidivism and five new studies to the meta-analysis of violent recidivism. The results of the meta-analysis indicate that the odds of general recidivism were 25% lower, and the odds of violent recidivism were 24% lower for individuals who participated in interventions compared with the control groups. The results of the present study are consistent with previous meta-analyses, which support the use of correctional violence treatment programs. Implications for future research are identified, considering these findings.

Key Words Violent offenders; violence treatment; offender treatment.

INTRODUCTION

While individuals who commit violent offences are a small proportion of individuals who commit crimes overall, they are responsible for a large proportion of crime (Palmer, 2017). Violent offenders are likely to have both violent and nonviolent subsequent reoffences (Polaschek & Wong, 2020); therefore, reducing their recidivism is important for increasing public safety and community well-being. It is common for correctional authorities and parole boards to require that individuals who have committed violent offences participate in treatment programming prior to their release from custody or as a requirement of a community-based sentence (Daffern et al., 2018; Papalia et al., 2019). These interventions are offered in correctional facilities, inpatient mental health units, and the community, although they vary in treatment modality, duration, and intensity (Jolliffe & Farrington, 2007; Papalia et al., 2019). There is a growing consensus that outcomes for offenders, including recidivism, can be improved through evidence-based correctional interventions that address their needs and risks.

Since the 1990s, the Risk-Need-Responsivity (RNR) Model of Offender Assessment and Treatment (Andrews & Bonta, 2010) has been the accepted model of correctional intervention. The RNR model guides the assessment of risk to determine which individuals receive treatment, treatment goals, and how treatment will be delivered (Andrews et al., 2006). Extant research has demonstrated that interventions that follow the principles of RNR are most effective for reducing recidivism (Andrews & Bonta, 2010; Andrews et al., 2006; Bonta & Andrews, 2017; Olver et al., 2011; Palmer, 2017; Polaschek & Wong, 2020).

A positive outcome of the movement towards evidence-based practices is a growing number of researchers who

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are publishing studies using untreated comparator groups to examine differences in reoffending between those who participate in intervention programs and those who do not. Meta-analysis is a way to synthesize the results of empirical studies that include both treated and control groups to determine what we currently know about the efficacy of violence intervention programs for reducing reoffending (Borenstein et al., 2021; Turanovic & Pratt, 2021).

The aim of this study was to examine whether violence intervention programs offered in community or institutional correctional settings are effective for reducing general and violent recidivism. Four research questions were addressed: (1) Do violence intervention programs reduce general (i.e., any) recidivism? (2) Do violence intervention programs reduce violent recidivism? (3) Are treatment effects moderated by characteristics such as the year and country in which the study was conducted, sample size, or inclusion of intent-to-treat (ITT) or completers in the treatment condition? And (4) Are effects moderated by intervention characteristics such as program type or duration?

Prior Meta-Analyses of the Effect of Violence Intervention Programs on Recidivism

Jolliffe and Farrington (2007) carried out meta-analyses of 11 studies of general recidivism and eight studies of violent recidivism. They found that individuals participating in intervention programs were 8–11% less likely to be reconvicted of a general offence and 7–8% less likely to be reconvicted of a violent crime. A meta-analysis by Henwood et al. (2015) examined the effectiveness of cognitive-behavioural therapy (CBT)-based anger management programs on recidivism. Their analysis included 14 studies, and they reported that participation in interventions reduced the risk of general recidivism by 23% and of violent recidivism by 28%. With respect to program delivery, moderate-intensity CBT-informed anger management programs had a larger effect than high-intensity CBT programming.

Papalia et al. (2019) analyzed 16 studies of general recidivism, including ten studies also included by Jolliffe and Farrington (2007) and 16 studies of violent recidivism, doubling the number included in Jolliffe and Farrington's (2007) analysis. They found that participation in violence intervention programs reduced the odds of general recidivism by 35% and the odds of violent recidivism by 31%. A subsequent meta-analysis of 22 studies conducted by Papalia et al. (2020) assessed whether psychological treatments were related to changes in dynamic risk factors for offenders with histories of violence. Their analysis revealed that treatment reduced trait anger and impulsivity and increased problem-solving and social skills.

Gannon et al. (2019) conducted a meta-analysis of 70 studies to determine the effect of specialized psychological treatments on general recidivism as well as domestic and sexual violence. Overall, they found a 20.4% decrease in general recidivism and a 33.3% reduction in violent recidivism. Their results also indicate improved outcomes when treatment is delivered by a registered psycholkogist and when clinical supervision is available for staff. Altogether, the results of this prior research show a promising relationship between participation in psychologically-based correctional interventions and reductions in general and violent recidivism.

METHODOLOGICAL STRATEGIES

Inclusion Criteria

Population

The analyses were limited to studies of adults who had been convicted of a violent offence and had participated in a psychological violence treatment/intervention program in a community-based or custodial correctional setting. Consistent with Papalia et al. (2019), the present research focused on general violent offenders (i.e., those who had committed violent non-sexual offences such as assault or aggravated assault against victims who were not intimate partners). Studies that included only perpetrators of domestic or sexual violence and juveniles were excluded.

Interventions

Psychological treatment/interventions were included in the analyses if they had the specified objective of reducing violent, aggressive, and/or antisocial behaviour for adults with a history of violent offending. Examples of interventions evaluated in the included studies are CBT and anger management programs. As the objective was to assess the efficacy of violence intervention programs, studies evaluating other rehabilitative options, such as employment programs, were excluded from the analyses.

Outcome Data

To be included in the analysis, studies needed to report recidivism after participation in the intervention. Studies that reported any type of recidivism (e.g., reoffence, reconviction, or return to custody) were eligible for inclusion (Supplemental Table I details the recidivism measures used in the analysis). Two meta-analyses were conducted to examine two types of recidivism: violent and general (i.e., any) reoffending.

Comparison Groups

Studies were included in the analysis if they reported results for a group of individuals who participated in the intervention as well as a control group. Control conditions included treatment-as-usual (TAU) or untreated offenders, including waitlist control groups or no-treatment groups. Randomized control trials (RCTs) fit the criteria, as did quasi-experimental designs if treatment and control groups were matched on pre-treatment variables (e.g., risk level, sentence length, race, age, and education).

Quality of Included Studies

Studies were rated using the University of Maryland Scientific Methods Scale (MSMS; Farrington et al., 2002; Sherman et al., 1998). To be included in the analysis, studies needed to be ranked as MSMS Level 3 (measuring crime before and after the intervention in comparable treatment and control conditions) or higher. Correlational and pre–post studies without a control condition (Levels 1 and 2) were excluded.

Search Strategy and Study Selection

This research replicates and extends a meta-analysis conducted by Papalia et al. (2019), adding research published up to July 5, 2021. These studies—and their characteristics—are shown in Supplemental Table I. Studies were located by

searching Google Scholar as well as government websites from Australia, Canada, the United Kingdom, and the United States. Articles that did not report outcome data for individuals with a history of violent offending separately from other offenders in the sample were not used in the current analysis unless more than 90% of the treatment group had committed a violent offence (see Supplemental Table I). The authors of three studies (Arbour, 2021; Capellan et al., 2022; Seewald et al., 2018) provided outcome data via e-mail for individuals who had committed violent offences within their sample. Some researchers reported results for individuals who completed the intervention, while others used an ITT design (reporting outcomes for those who were assigned to the treatment group, regardless of whether they completed the intervention). When outcome data were available for both completers and ITT, the ITT data were used (see Supplemental Table I). Figure 1 illustrates the study selection process. Altogether, a total of 24 studies were included in the two meta-analyses: 21 studies of general recidivism and 19 studies of violent recidivism. Sixteen studies report outcomes for both general and violent recidivism (see Supplemental Table I).

Synthesis of Results

Comprehensive Meta-Analysis version 3.0 software (Borenstein et al., 2013) was used to conduct the analyses, including the calculation of individual effect sizes and meta-analyses of effect sizes. Odds ratios (OR) were used to summarize the effect size of recidivism outcomes. The random-effects model was used, as this approach assumes that the included studies are a random sample of studies that could exist and true effects could vary among studies (Borenstein et al., 2010, 2021).

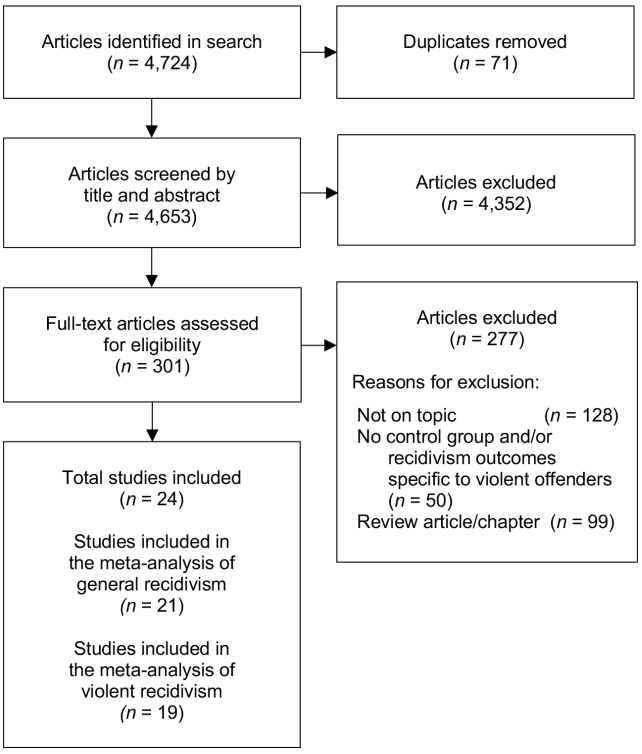

FIGURE 1 Articles identified and included in the meta-analysis

RESULTS

Descriptive Data for Included Studies

Descriptive data for individual studies included in the meta-analyses for general and violent recidivism are included in Supplemental Table I.

General Recidivism

The meta-analysis for general recidivism included 21 studies published between 1993 and 2021.[1] The authors of these studies assessed the outcomes of 17,223 adults with a history of violent offending who were under correctional supervision. Almost all (99%) participants were men (n = 17,076); less than 1% were women (n = 147). Participants' mean age was 30.35 (standard deviation [SD] = 3.13, range: 23–48 years). Seven studies used unmatched comparison groups (MSMS Level 3), eight employed matched comparison groups (Level 4), and six randomly assigned participants to treatment and control conditions (Level 5). Eight interventions were delivered specifically for individuals assessed as having a high risk to reoffend, while eight others were delivered to individuals of varying risk levels. Five studies did not report participants' risk levels.

Sixteen of these interventions were delivered in correctional facilities, four took place in the community, and two were offered in inpatient forensic units. Robinson (1995) reported results from the delivery of the intervention in an institution and in the community; these were combined to create one effect size. Most (15 of 21) of the treatment/intervention programs included in the meta-analysis were cognitive-behavioural. Outcomes from four interventions reported by Lugo et al. (2019) were combined to produce one effect size—one of these programs was cognitive-behavioural, and another related to anger management. Most of the interventions were delivered in a group format (k = 15) or involved a combination of group and individual programming (k = 5), and one program can be delivered either as a group or one-to-one (k = 1). No studies in the present analysis focused on interventions solely delivered one-to-one. The average length of programming was 127.8 hours (SD = 122.27, range: 21–330 hours).[2]

Supplemental Table I indicates the measures of recidivism included in the meta-analysis. These included: reoffence (k = 7), reconviction (k = 10), and return to custody (readmission) (k = 4). Some of the researchers provided data for multiple measures of recidivism. In 19 of the studies, data used in the analysis of general recidivism outcomes include any reoffending (both violent and nonviolent); however, in two studies (Barnes et al., 2017/Hyatt, 2013; Polaschek et al., 2005), available data for general recidivism comprised nonviolent offences.

Violent Recidivism

The meta-analysis for violent recidivism included 19 studies published between 1993 and 2021. These studies assessed the outcomes of 8,863 adults with a history of violent offending.

[1] Capellan et al. (2022) was first published online in 2020.

[2] Lugo et al. (2019) did not report the length of the various interventions. Two studies reported the length of the treatment in months (Motiuk et al., 1996, 8 months, and Wong et al., 2012, 8–9 months). These studies are not included in the average presented in the descriptive statistics.

The demographic characteristics of this sample were similar to those in the general recidivism sample: 99% were men (n = 8,752), and approximately 1% were women (n = 111). Their mean age was 29.27 (SD = 4.31, range: 23–48 years). Included studies were rated as MSMS Level 3 (k = 9), Level 4 (k = 7), and Level 5 (k= 3). Eight of the interventions in the analyzed studies were delivered specifically for individuals assessed as a high risk to reoffend, whereas nine were delivered to individuals of varying risk levels. Two studies did not report participants' risk levels.

Interventions were delivered in correctional facilities in the majority of studies (k = 15); others were delivered in the community (k = 2) and inpatient forensic units (k = 2). With respect to treatment orientation, 15 of the programs included in the meta-analysis had a cognitive-behavioural approach. About two-thirds of these interventions were delivered in a group format (k = 13); the remainder involved a combination of group and individual programming (k = 6). The average length of programming was 148.25 hours (SD = 145.00, range: 21–470 hours), which was about 20 hours longer than the average for interventions in the general recidivism sample.[3] Three recidivism measures were considered in the analysis, including reoffence (k = 7), reconviction (k = 10), and readmission (k = 2). Some studies provided data for multiple measures of recidivism; Supplemental Table I indicates measures of recidivism included in the meta-analysis.

Treatment Effects

Figures 2 and 3 present the OR and associated statistics for the meta-analyses of general and violent recidivism after participation in intervention programs.

General Recidivism

Overall, eight of the 21 studies reported a statistically significant ($p \leq .05$) reduction in general offending, eight showed a non-significant reduction, one study reported a p value of 1.000, and four showed a non-significant increase in recidivism. Using the random-effects model, the pooled OR was 0.750 with a corresponding p value of ≤ .001. Therefore, the odds of general/nonviolent recidivism were 25% lower for individuals who participated in interventions compared with the control group. The 95% confidence interval (CI) is 0.644 to 0.875; this is an index of the precision of the estimate of the mean effect size. The Z value for testing the null hypothesis (that the mean effect size is zero) is -3.675.

The Knapp-Hartung adjustment yields a wider confidence interval, which is more accurate when using the random-effects model (Borenstein, 2019). Using the Knapp-Hartung adjustment, t = -3.636, df = 20, the 95% CI is 0.638 to 0.887. The prediction interval of 0.14 to 4.06 is an index of how broadly the effect size varies across populations; therefore, the true effect size in 95% of all comparable populations falls within this interval (Borenstein, 2019).

The Q statistic tests the null hypothesis that all studies in the analysis share a common effect size. The Q value is 52.03 with 20 degrees of freedom and $p \leq .001$; therefore, the null hypothesis (that all studies in the analysis share a common effect size) is rejected. The I^2 statistic tells us that 61.56% "of the variance in observed effects reflects variance in true effects rather than sampling error" (Borenstein, 2019, p. 265). The highest standard residual was 1.57; therefore, the difference between the observed and expected value is low.

The authors of three studies provided results for violent offenders within their larger samples of offenders. One of these, Capellan et al. (2022), included 15 violent offenders. Due to the size of this sub-sample, the results of this study display a wider confidence interval. Using the random-effects model, this study is assigned the lowest relative weight (less than 1%), whereas studies with larger samples (e.g., Barnes et al., 2017/Hyatt, 2013; Higgs et al. 2019; Lardén et al., 2018; Lugo et al., 2019) are assigned a greater relative weight (between 8.5% and 18.5%). The pooled OR using the "one study removed" approach ranged from 0.722, $p \leq .001$ (removing Lugo et al., 2019) to 0.782, $p \leq .001$ (removing Polaschek et al., 2016); therefore, the results of the meta-analysis do not change significantly with any studies removed.

Violent Recidivism

Overall, four of the 19 studies reported a statistically significant ($p \leq .05$) reduction in violent recidivism, ten showed a non-significant reduction, one study reported a p value of approximately 1.000, and four showed a non-significant increase in recidivism. Using the random-effects model (I^2 = 31.68%; Q = 26.35; $p \leq .001$), the pooled OR was 0.760 with a 95% CI of 0.644 to 0.896 and a corresponding p value of ≤ .001 and Z value of -3.258. Therefore, the results of the meta-analysis indicate that the odds of violent recidivism were 24% lower for individuals who participated in the intervention compared with the control group. Applying the Knapp-Hartung adjustment, t= -3.26, df= 18, the 95% CI is 0.644 to 0.896. The prediction interval is 0.14 to 4.17. The highest standard residual was 1.55; therefore, the difference between the observed and expected value is low.

Using the random-effects model, weights assigned to the 19 studies ranged from 1.5% (Wong et al., 2012) to 16.5% (Lardén et al., 2018). The pooled OR using the "one study removed" approach ranged from 0.730, $p \leq .001$ (removing Lardén et al., 2018) to 0.795, $p \leq .003$ (removing Polaschek et al., 2005) or 0.795, $p \leq .004$ (removing Polaschek et al., 2016).

Moderator Effects

Supplemental Table II presents the results of meta-regressions examining how methodology and intervention characteristics moderate the effect of intervention programs on general and violent recidivism. Two moderator variables had a statistically significant effect on general recidivism: sample size ($p \leq .001$) and duration of the intervention (in hours) ($p \leq .05$). Four moderator variables had a statistically significant impact on violent recidivism: analysis (ITT or completer), publication year, sample size (all significant at the $p \leq .001$ level), and duration of the intervention (in hours) ($p \leq .05$).

DISCUSSION

The goal of the present study was to examine whether, overall, the provision of violence intervention programs offered in

[3]Two studies reported the length of the treatment in months (Motiuk et al., 1996, 8 months, and Wong et al., 2012, 8–9 months) and one reported the length of treatment in years (Seewald et al., 2018, as per J. Gerth, personal communication 2021, 4.4 years). These studies were not included in the average presented in the descriptive statistics.

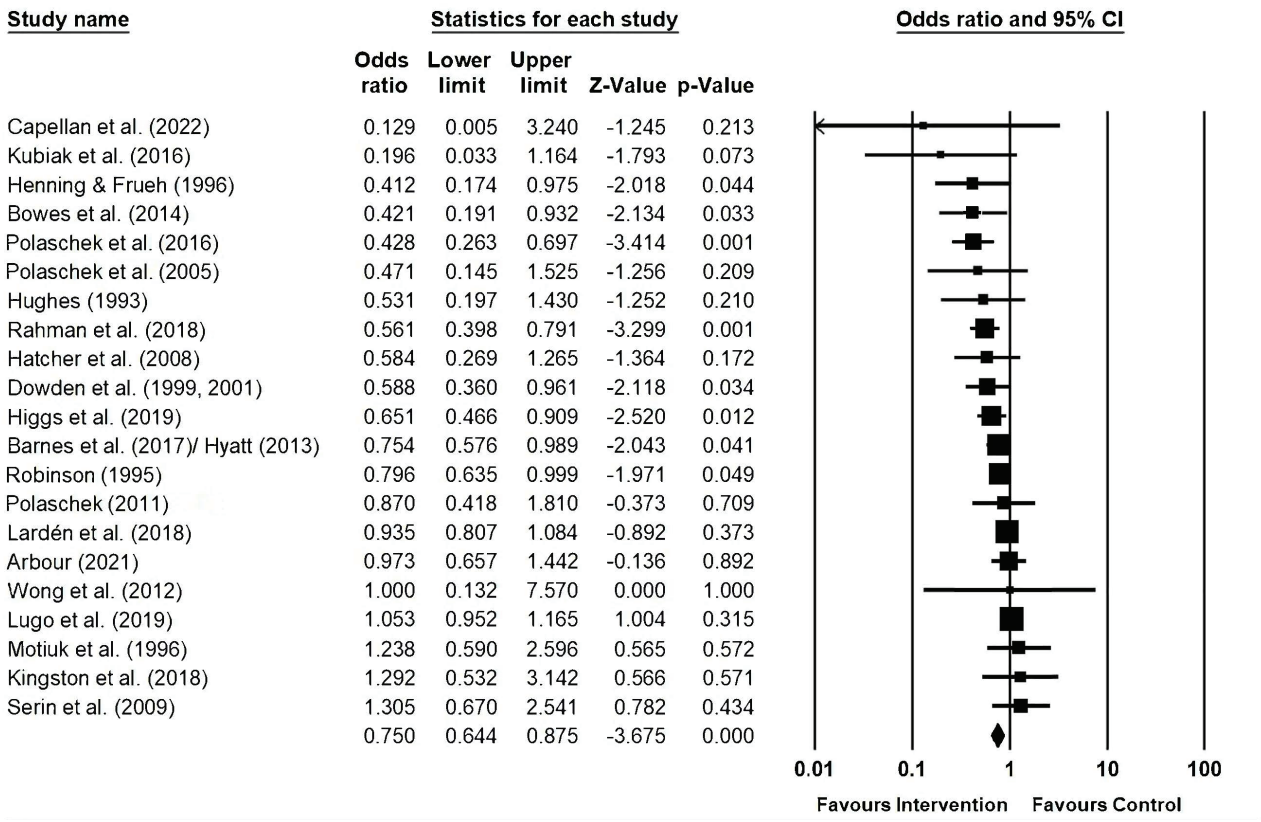

FIGURE 2 Meta-analysis of intervention effect on general recidivism. Note: Displays random-effects model.

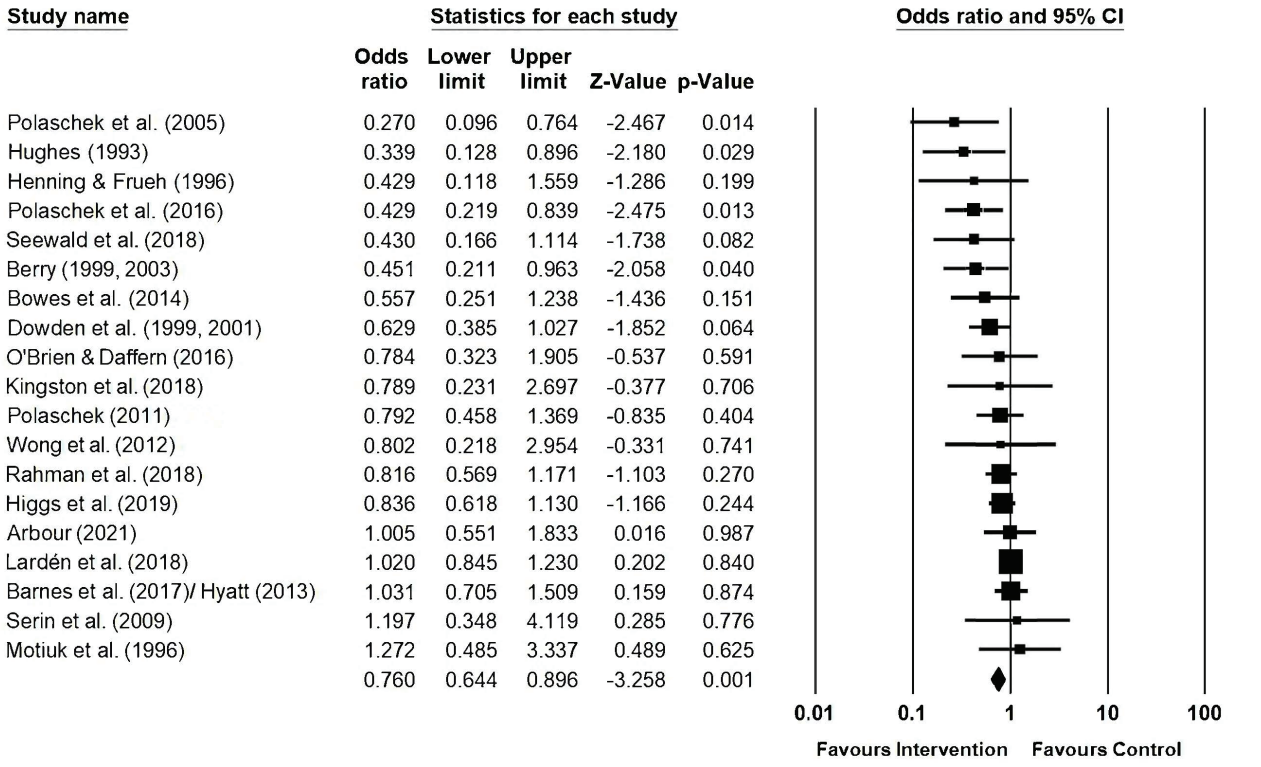

FIGURE 3 Meta-analysis of intervention effect on violent recidivism. Note: Displays random-effects model.

community or institutional correctional settings is effective for reducing general and violent recidivism among individuals with previous histories of general violence (i.e., not intimate partner or sexual violence). This study replicates and extends the research conducted by Papalia et al. (2019) by adding seven new studies to the meta-analysis of general recidivism and five new studies to the meta-analysis of violent recidivism. The present meta-analyses show that taken together, the odds of general recidivism were 25% lower, and the odds of violent recidivism were 24% lower for individuals who participated in interventions compared with the control groups. The results presented above are consistent with previous meta-analyses, which support the use of correctional violence treatment programs (see also Henwood et al., 2015; Gannon et al., 2019; Jolliffe & Farrington, 2007; Papalia et al., 2019). These findings support making violence intervention programming available to men who have perpetrated violent offences to reduce future incidents of violent offending, as well as reoffending generally, therefore helping to increase public safety and community well-being. Further, reducing recidivism not only improves the lives of others (including direct and collateral victims), it improves the lives of individuals who have previously used violence.

As the present study incorporated all available studies that reported recidivism data after participating in violence intervention programming for a treatment and control group, the results provide insight into the overall effectiveness of violence intervention programs on general and violent recidivism. There is considerable variability among the studies included in the meta-analyses. The present analyses used outcomes for ITT (individuals who were assigned to the treatment group, regardless of whether they completed the intervention) when available; however, the studies used in the analyses included those that provided recidivism outcomes for ITT and for treatment completers only. Meta-regressions of moderator effects (Supplemental Table II) show that the method of analysis (ITT or completers only) had a statistically significant impact on violent recidivism outcomes. Sample size had a statistically significant effect on both general and violent recidivism (Supplemental Table II).

Another area of difference among the programs evaluated in the included studies was length. Intervention programs included in the meta-analysis of general recidivism ranged from 21 to 330 hours (M = 127.8 hours); programs in the meta-analysis of violent recidivism ranged from 21 to 470 hours (M = 148.25 hours). This moderator variable had a statistically significant effect on both general and violent recidivism (Supplemental Table II).

Studies included in two meta-analyses were published between 1993 and 2021. Publication year had a statistically significant effect on violent recidivism (Supplemental Table II). Knowledge regarding "what works" for intervening with individuals who use violence has advanced during these three decades, including the acceptance of the RNR Model of Offender Assessment and Treatment (Andrews & Bonta, 2010), which guides the assessment of risk to determine which individuals receive treatment, their treatment goals, and how treatment is delivered in accordance with individuals' specific needs and responsivity factors (Andrews et al., 2006). Only three studies in the meta-analyses specified that the programs being evaluated were guided by the principles of RNR (Lugo et al., 2019; Seewald et al., 2018; Wong et al., 2012). It was not possible to assess the extent to which other interventions adhered to the principles of RNR.

While not statistically significant in the analyses of moderator variables, there were other areas of variability among the treatment/intervention programs included in the meta-analyses (characteristics of these programs are displayed in Supplemental Table I). For example, the majority of the programs included in the meta-analyses for general recidivism (15 of 21) and violent recidivism (15 of 19) were cognitive-behavioural programs. These programs ranged in length (hours and weeks), and fewer interventions were based on anger management or other approaches. The majority of programs were delivered in a group treatment format; some also offered individual sessions in addition to the group. Eight interventions (in both meta-analyses) were delivered specifically to individuals assessed as having a high risk to reoffend; other interventions were delivered to individuals of varying risk levels, or information regarding risk level was not reported. In addition, the analyses included three different recidivism measures: reoffence, reconviction, and readmission.

While the meta-analyses included studies of interventions delivered for people of any gender with a history of violent offending, individuals included in the analyses were 99% men (17,076 of the 17,223 sample for general recidivism and 8,752 of the 8,863 sample for violent recidivism). Therefore, it should not be assumed that these findings are applicable to violence interventions with women offenders. More research is needed into gendered differences in the perpetration of general violence and "what works" for people of different genders who have used violence.

CONCLUSION

The present study determined that, overall, group violence intervention programs offered in community or institutional correctional settings are generally effective for reducing general and violent recidivism for men with previous histories of general violence. There is a substantial amount of variation in the studies included in the meta-analyses, including the year the studies were published, the methods of analysis, and measures of recidivism outcomes. There is also substantial variation in the intervention programs being evaluated (including cognitive-behavioural and anger management interventions, length of programs, and assignment to programming according to participants' risk level).

A continuing challenge for researchers is identifying the specific program models and characteristics of group interventions (e.g., length) that are the most effective, as well as the demographic, psychological, and offence-related characteristics of individuals who reduce subsequent offending after participation, to determine what works for different types of offenders and how violence intervention programming can be most effectively delivered in accordance with individuals' specific risks, needs, and responsivity factors (RNR; Andrews et al., 2006; Andrews & Bonta, 2010; Bonta & Andrews, 2017; Olver et al., 2011; Palmer, 2017; Polaschek & Wong, 2020).

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CONFLICT OF INTEREST DISCLOSURES

The author declares that there are no conflicts of interest.

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SUPPLEMENTAL MATERIAL

Supplemental material linked to the online version of the paper at journalcswb.ca/index.php/cswb/article/view/308/supp_material

- **Supplemental Table I** Key descriptive data for studies included in the meta-analyses for general and violent recidivism
- **Supplemental Table II** Results of meta-regressions with single covariates for general and violent recidivism

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SOCIAL INNOVATION NARRATIVES

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Roots of Hope: A uniquely Canadian approach to suicide prevention

Joshua Bauer,* MSW, on Behalf of the Mental Health Commission of Canada

ABSTRACT

Suicide is a significant public health issue in Canada, with rural areas and young people experiencing a higher incidence of suicides. To address this issue, the Mental Health Commission of Canada (MHCC) developed Roots of Hope, a community-led suicide prevention model with five pillars and 13 guiding principles. The model is flexible and tailored to meet specific community needs, and an initial research demonstration project has shown promising results. The ongoing implementation of Roots of Hope has the potential to significantly impact suicide prevention efforts throughout Canada. The model aligns with the MHCC's mission of empowering communities to develop and implement their own solutions and exchange best practices. The COVID-19 pandemic has highlighted the urgency of suicide prevention and the need for resources specifically designed to meet community needs. The positive outcomes of Roots of Hope offer the potential to make a meaningful impact on the lives of Canadians.

Key Words Mental health; community-based; community led; evidence-based; multi-sectoral; life promotion.

A UNIQUELY CANADIAN APPROACH TO A COMPLEX PROBLEM

Suicide is a complex and pressing public health issue in Canada, with over 4,500 deaths predicted this year alone, averaging more than 12 deaths every day. However, the impact of suicide is not uniform across Canada. Rural areas experience a higher incidence of suicides than urban areas, and it is the second leading cause of death among young people. Given the seriousness of this issue, it is essential to engage all levels of government, together with communities, in addressing suicide prevention—this means national, provincial–territorial, and local efforts.

In 2015, the International Initiative for Mental Health Leadership (IIMHL) conducted a review of existing suicide prevention models to develop an evidence-based approach for communities. This review identified five pillars of action that form the foundation of a community-led model that has the capability of preventing suicides and reducing their impact by leveraging local strengths and partnerships through a collaborative, multi-sectoral approach.

Recognizing the urgent need for a comprehensive approach to suicide prevention within Canada, the Mental Health Commission of Canada consulted national and international experts to develop Roots of Hope. The model's five pillars and 13 guiding principles were carefully crafted based on the IIMHL's findings and after considering the factors necessary for effective community-led suicide prevention. Roots of Hope's flexible approach builds upon existing programs and services, encourages community collaboration, and establishes new partnerships to create interventions tailored to specific community needs. The development of the Roots of Hope model has benefited greatly from those communities championing community-based interventions and allowing others to adapt and adopt evidence-based approaches to suicide prevention.

Building Momentum: The Research Demonstration Project

The Research Demonstration Project (RDP), an initial testing phase of Roots of Hope, demonstrated the adaptability and effectiveness of the Roots of Hope model. The findings from the RDP have underscored the critical importance of continued mental health and suicide prevention efforts throughout Canada. With the COVID-19 pandemic exacerbating mental health challenges, including an increase in suicidal ideation and attempts, it is more urgent than ever for communities to have access to suicide prevention and life promotion resources tailored to their specific needs.

As the RDP ends, the leadership demonstrated by the seven participating communities is inspiring. These communities have provided valuable wisdom and experience, combined

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with the contributions of local researchers and the principal investigator, to provide a path forward for suicide prevention in Canada. The ongoing implementation of Roots of Hope has the potential to significantly impact suicide prevention efforts throughout Canada, and further research and evaluation are essential for continuous improvement and success.

As Roots of Hope expands into more communities and establishes new networks, it is poised to gain momentum and evolve in meaningful ways. The positive outcomes from Roots of Hope offer the potential to make a meaningful impact on the lives of Canadians. It is vital that we continue to emphasize the importance of suicide prevention and embrace Roots of Hope as a valuable tool for achieving this goal throughout our great country.

Our Findings from the Research Demonstration Project

The Roots of Hope RDP, conducted between 2018 and 2022, studied the model's implementation in seven communities, assessing the feasibility of implementing it in various contexts to reduce suicide and its impact. The RDP aimed to inform best practices for applying the model in communities and to identify promising practices that could be adapted to meet the needs of unique population groups. A third priority was to make recommendations for its further refinement.

During the RDP, six key takeaways were identified that reflect the experiences of all participating communities and highlight the essential lessons learned during the implementation of the Roots of Hope model.

- The Roots of Hope model proved to be a valuable and practical tool for developing community suicide prevention strategies, with communities using the model to identify activities to implement.
- The community of practice facilitated an exchange of ideas, information, and experiences that supported the planning, implementation, and evaluation of local programs.
- Roots of Hope promoted collaboration across different sectors, including the use of lived experience to inform the development and impact of program activities.
- Roots of Hope played a crucial role in accelerating the expansion of evidence-based suicide prevention activities in various community settings.
- The formation of community coalitions and the leadership of community coordinators were integral to ensuring a comprehensive and sustained implementation of the model.
- Lastly, Roots of Hope has the potential to engage rural populations through the development of community-based initiatives and novel activities that are tailored to their specific needs.

The Roots of Hope Model Overview

Roots of Hope communities adapt their suicide prevention initiative based on the model's five pillars and 13 guiding principles. The pillars focus on means safety, public awareness, research, specialized supports, and training and networking for community leaders.

- Means Safety. Identify the methods or places where a high number of suicides occur and implement measures to safely limit access to them (e.g., building barriers on bridges or at railway crossings and protocols for medication access).
- Public Awareness. Create locally driven campaigns to promote mental health awareness (e.g., posters, brochures, social media) and collaboration with the media.
- Research. Set research priorities, surveillance, and monitoring and evaluation to increase the suicide prevention evidence base.
- Specialized Supports. Develop a range of possible prevention, crisis, and post-crisis services (e.g., peer support, support groups [including self-help], workplace interventions, and coordinated planning and access to services).
- Training and Networks. Provide training and learning opportunities for community gatekeepers (e.g., physicians, first responders, nurses, human resources staff, and teachers).

The guiding principles prioritize collaboration, measurement and evaluation, and recognition of lived experience. They aim to be culturally appropriate, strengths-based, and flexible, with a focus on recovery-oriented, evidence-informed, sustainable interventions. The guiding principles also suggest spanning the continuum of prevention, intervention, and postvention services, being community-centred, and innovative. Ultimately, the goal is to use a comprehensive approach to prevent suicide, with multiple interventions geared towards a wide range of individuals across a variety of settings.

Paving a New Way Forward for Community-Based Interventions

In terms of the possibilities for the future, Roots of Hope has the potential as a model for suicide prevention in a wide range of community contexts. Tailoring the model's approach to the specific needs and challenges of each community can help create sustainable and effective strategies for reducing the rates of suicide and promoting well-being.

As the RDP has shown, Roots of Hope's approach to suicide prevention and life promotion is not only effective but also adaptable to suit the unique contexts and structures of Canada's diverse communities. This flexibility lends Roots of Hope the potential for implementation in more communities across Canada, including in non-traditional settings such as universities, the policing sector, hospitals, and many more.

Currently, Roots of Hope has already expanded to 18 unique communities, three provinces and one territory, with ongoing discussions with additional communities, provinces, and territories interested in adopting the model. This demonstrates the demand for a customized, made-in-Canada approach to suicide prevention and life promotion and highlights the potential for Roots of Hope to expand even further.

The future outlook for Roots of Hope is promising, as there is potential for further expansion and outreach to additional communities throughout Canada. With a commitment to evidence-based strategies and a tailored approach, Roots of Hope can continue to make a positive impact on suicide prevention and life promotion in a variety of community settings.

For more information on Roots of Hope please navigate to https://mentalhealthcommission.ca/roots-hope/.

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CONFLICT OF INTEREST DISCLOSURES
The author is an employee of the Mental Health Commission of Canada.

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