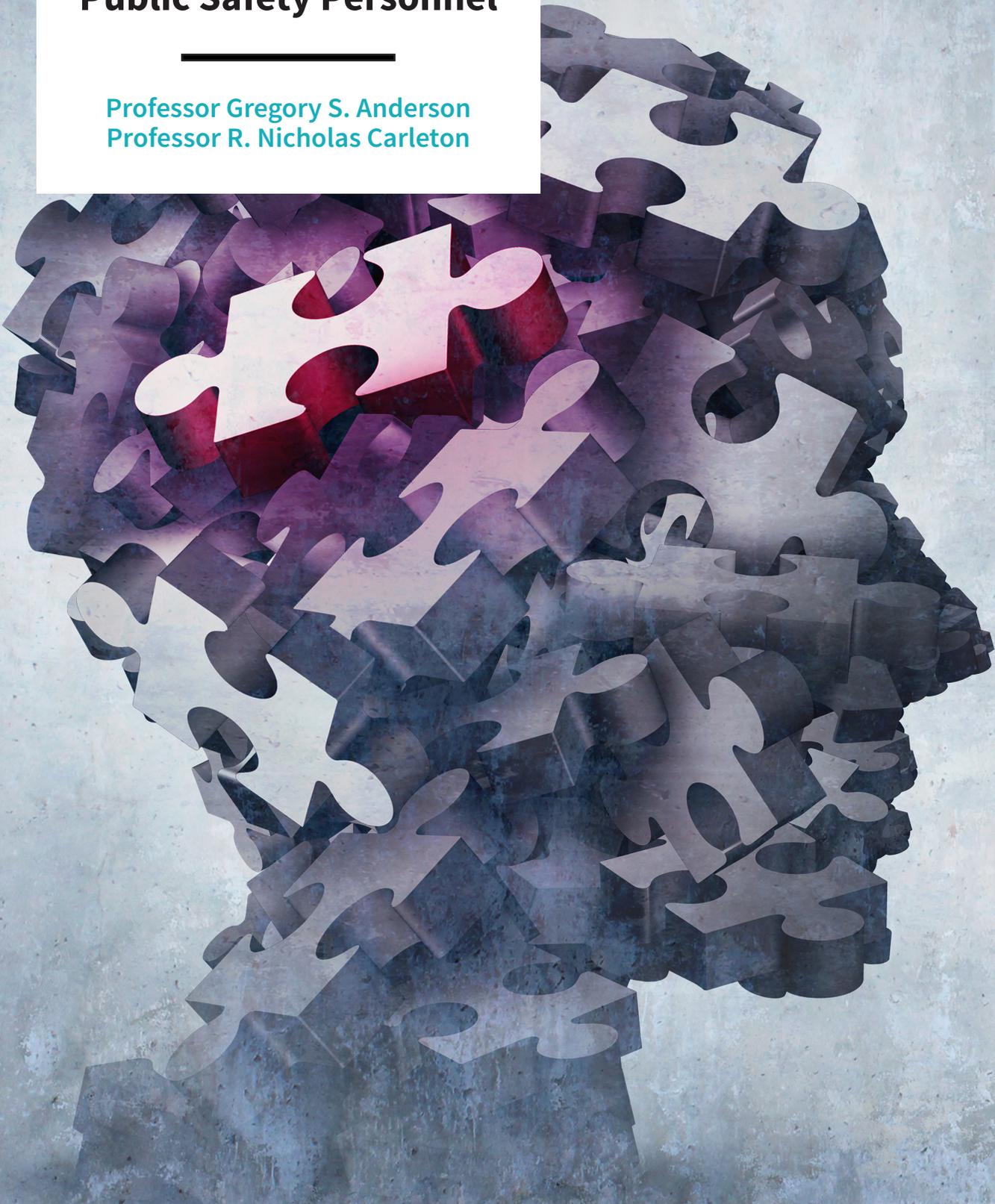


# Building Resilience in Public Safety Personnel

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Professor Gregory S. Anderson  
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# BUILDING RESILIENCE IN PUBLIC SAFETY PERSONNEL

While it is impossible to imagine a stress-free working environment, border services personnel, correctional workers, firefighters, operational and intelligence personnel, paramedics, police, public safety communicators, and search and rescue personnel are regularly exposed to dramatic, potentially psychologically traumatic experiences. Unsurprisingly, people working in these professions suffer from mental health challenges more often than the general population. The research of **Professors Anderson and Carleton** focuses on improving the well-being of these key workers in Canada.

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## The Emotional Toll of Work

Had a bad day in the office or a disagreement with a work colleague? All working lives have downsides but compared to the challenges faced routinely by public safety personnel – individuals working in the emergency services – many work-related stresses can appear trivial.

It is widely appreciated that firefighters, paramedics (including emergency medical technicians) and police officers can be exposed to very challenging, potentially psychologically traumatic experiences. Other public safety personnel, such as correctional workers and public safety communicators (such as call handlers and dispatchers at emergency services) fulfil less visible roles that are equally as important and often similarly challenging. The list of stressful situations that these individuals can find themselves in daily is limited only by our imagination, and few civilians will have a true comprehension of the extreme stressors that may be confronted.

We can also instinctively see that many people working in these roles will suffer psychological injuries as a result of their daily work, leading to various mental health challenges, including symptoms of post-traumatic stress disorder, major depressive disorder, generalised anxiety disorder, and even suicidal thoughts. Perhaps fewer people realise that the consequences of these mental health challenges are not limited only to these individuals and their families. When affected people leave their highly skilled jobs, it stretches existing resources, and the recruitment and training of those replacing them require a considerable financial commitment.

Despite the importance of these problems, the science of objectively investigating the experiences of public safety personnel, and the exploration of potential coping mechanisms that may help these individuals, is in its relative infancy. Professors Anderson and Carleton are pioneers in examining stress mitigation and the provision of treatment for post-traumatic stress disorder in these populations. They have spent decades investigating the challenges facing public safety



personnel and trying to develop innovative solutions to support the mental well-being of these key workers.

## The Scope of the Problem

In any scientific discipline, defining a problem usually starts with establishing the number of affected individuals. However, gaining accurate numbers indicating how widespread mental health challenges are amongst public safety personnel is difficult. The definition of these disorders is continually evolving, and the methods used for gathering information show considerable variability between studies.

Without getting into the nuances of these considerations, let's look at some findings. In a relatively recent Canadian study, Professor Carleton and



colleagues found that out of 5,813 public safety personnel more than 15% had symptoms of at least one mental health disorder, while more than 28% reported signs during the three-month study period that were compatible with the presence of two or more mental health disorders. Similar studies in paramedics indicated that 49% of the questioned population showed some signs of one or more mental health disorders, while in nurses the number is around 45%. A bleak picture indeed.

However, as Professors Anderson and Carleton point out, the situation is even worse for a subset of these workers. Ex-military service personnel are often employed by the police or other public safety-related organisations. A large study found that individuals with previous military experience were 1.5 times more likely to suffer from post-traumatic stress disorder, or problematic symptoms related to anxiety, depression, or stress, than those with no army experience.

The team also point to a particularly worrying statistic: mental health disorder symptoms appear correlated with suicidal thoughts and suicide plans. However, somewhat surprisingly, the professors and their colleagues found that most actual suicide attempts were made by civilian members of the police force – specifically, individuals in administrative and support roles.

### **Organisational Issues**

Of course, it is not possible to eliminate potentially psychologically traumatic events from the lives of public safety personnel, as dealing with these events is an integral part of the job. Data from Canada indicate that the average emergency worker will experience hundreds or even thousands of events involving threatened or actual physical assault, sexual violence, fires, explosions, violent or sudden deaths, and catastrophic injuries during their active working life.

However, it is increasingly being recognised that these potentially psychologically traumatic events represent only a fraction of stressors affecting public safety personnel. As the work of Professors Anderson and Carleton has demonstrated, so-called organisational and operational issues, such as shift work, limited resources, lack of equipment or training, actual or perceived lack of support from colleagues and family, and related issues can have a pronounced cumulative negative impact on the mental health of public safety personnel, above and beyond the potentially psychologically traumatic events. In fact, the most prominently reported causes of stress were the feeling that workers constantly needed to prove themselves, chronic fatigue, social stigma associated with the job, and the poor reaction of colleagues after somebody took time off due to sickness or injury.

### **Some Lesser-investigated Consequences of Stress**

Apart from its effects on mental health, both acute and chronic stressors can impact the functioning of individuals in challenging environments. While most work in this field has investigated how stressors impact mental tasks such as decision-making and problem-solving, Professor Anderson decided to focus his attention on the previously ignored topic of how stressors impact movements – so-called motor skills.

There is objective evidence that in situations of imminent danger, for example when facing an armed opponent, the precision of movements deteriorates. In the context of policing, this translates to reduced accuracy while performing critical shooting skills. This deterioration of precise skilled movements is combined with increased blinking – resulting in less visual contact with a potential target – and will inevitably affect the performance of officers when facing dangerous scenarios. Other movement-based tasks, such as actions during self-defence or arrest situations also deteriorate significantly in threatening situations.



Based on a review of the literature and their own research, Professor Anderson and his team created recommendations for the police force on how to train officers to reduce the stress-related deterioration of such motor skills.

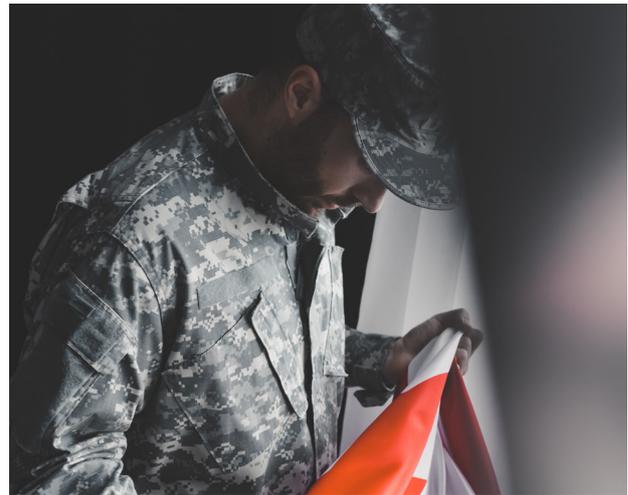
### Help at Hand

Despite expensive research on the consequences of mental health challenges among public health personnel, past attempts to reduce the impact of these problems invariably focused on interventions after challenges had already developed. In contrast, in view of the inevitability of public safety personnel being exposed to potentially psychologically traumatic events, and the organisational and operational stressors identified during their earlier work, Professor Anderson and his colleagues started to wonder whether it was possible to implement proactive strategies designed to build resilience, the ability to 'bounce back' after negative events.

As a first step towards this goal, they designed and created a 6-hour online programme designed to promote resilience by explaining psychological concepts and demonstrating potential coping strategies. The effectiveness of this intervention was initially tested in paramedic and nursing students. Participants in these early trials took a baseline test of their coping strategies, completed the training programme, and were retested for their resilience after the completion of the online training, and 3, 6 and 9 months later. The results demonstrated the effectiveness of the training material, although initial improvements started to slowly erode by 6 months and decreased even further at 9 months.

Professors Anderson and Carleton and their co-workers also analysed the literature for the effectiveness of existing interventions in proactively reducing post-traumatic stress disorder among public safety personnel. They found that most of the 36 previously trialled interventions provided some benefit, with multimodal strategies performing better.

To aid the development of better resilience training, the group conducted one of the largest studies of self-reported coping



strategies of experienced public safety personnel. Professor Anderson views resilience as an 'eco-system', a combination of three mechanisms that help the individual cope with traumatic events. The first one of these is based on the personal coping strategies of individual public safety personnel. Participating in training programmes, admitting the existence of problems, and reaching out for help when it was needed helped individuals to develop successful coping strategies.

The second pillar of promoting resilience is the family environment. Previous work has shown that while families are generally proud of public safety personnel, unsocial working hours, alternating night and day shifts, and psychological factors can have a negative impact on family relationships. Nonetheless, this work also identified positive habits underpinning well-functioning supportive families in which emergency workers and their partners and children could flourish.

The third pillar of resilience is a well-organised workplace. As mentioned earlier, the team already provided scientific evidence-based recommendations for the training of police officers, and their previous work contained valuable data that could be utilised in the training of managers, allowing them to develop more supportive working practices and environments.

### The Road Ahead

Given the irreplaceable contribution of public safety personnel to society, it is essential to create environments where individuals exposed to potentially psychologically traumatic events can work without sacrificing their own mental well-being. Achieving this goal would not only help the individuals providing these vital services but could minimise absenteeism, stress-related illnesses and injuries, and help to develop a more reliable, less stretched and happier workforce, benefiting society most broadly. The dedicated work of Professors Carleton and Anderson and the team undoubtedly represents the first steps towards solutions that will eventually transform the lives and working conditions of these valued professionals.

# Meet the researchers



**Professor Gregory S. Anderson**  
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Professor Gregory Anderson is the Dean of the Faculty of Science at Thompson Rivers University. He studied exercise physiology at the University of British Columbia and later gained his PhD in applied physiology at Simon Fraser University. He worked as the Dean of the Office of Applied Research & Graduate Studies at the Justice Institute of British Columbia between 2011 and 2020 during which time he volunteered as the Associate Director – Police Sector at the Canadian Institute for Public Safety Research and Treatment between 2016 and 2019. He took up his current post at Thompson Rivers University in 2020. His research interests include occupational health and wellness and the physiology of physically demanding occupations. He has developed and assessed an online learning tool for first responders to improve their personal resilience prior to deployment and published extensively on topics covering occupational and organisational stress and proactive mental health support programmes (<https://publicsafetyresilience.trubox.ca/>). He is passionate about improving the well-being of Canadian public safety personnel, their colleagues, organisations, and their families through world-class research and the promotion of evidence-based practices, policies and programmes for all public safety personnel.

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Nicholas Carleton, PhD is a Professor of Clinical Psychology, a registered clinical psychologist in Saskatchewan, and is currently serving as the Scientific Director for the Canadian Institute for Public Safety Research and Treatment. He has published more than 200 peer-reviewed articles and book chapters exploring the fundamental bases of anxiety and related disorders. He has completed more than 400 national and international conference presentations. He also serves as an active member of several national and international professional associations. As a principal or co-principal investigator, he has been awarded more than \$60M in competitive external funding. He has received several prestigious awards and recognitions, including recent induction as a Member of the Royal Society of Canada's College of New Scholars, Artists and Scientists, and as a Fellow of the Canadian Academy of Health Sciences, and was awarded the 2020 Royal-Mach-Gaensslen Prize for Mental Health Research.

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## FURTHER READING

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