

Relationship between Mental Health Training and Mental Health Knowledge, Stigma and Resiliency in a sample of Canadian Public Safety Personnel

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Background

- Public Safety Personnel (PSP) in Canada are front-line personnel who serve to protect Canadians by ensuring their safety and security
 - Municipal, provincial police
 - Federal police (Royal Canadian Mounted Police)
 - Firefighters
 - Paramedics
 - Correctional workers
 - Call centre operators/ dispatchers

Background-Prevalence

- PSP are frequently exposed to potentially traumatic events (PTE), which are associated with Operational Stress Injuries (OSI) Posttraumatic Stress Injuries (PTSI)
- OSI rates are about 4.5 times higher in PSP than the general population (Carleton et al., 2018)

Background-Response

- Multiple training/educational programs have been developed to respond to the emotional needs of PSP.
- Two main types
 - Crisis focused psychological intervention programs
 - Peer support
- Two modes of delivery
 - Pre-trauma exposure
 - Post-trauma exposure

Background-Response cont...

- Lack of robust longitudinal or experimental research on the effectiveness of these programs (Beshai & Carelton, 2016)
- Small, time-limited effects are often reported (e.g., reductions in stigma, increases in resiliency) (Szeto et al., 2019)
- Cross-sectional data does suggest lower prob of screening for OSI when training present (Carelton et al., 2019)

Resilience

Stigma

Mental
Health
Knowledge

Research aims

1. Estimate the prevalence of mental health training among PSP groups
2. Examine the relationship between mental health training types and positive mental health outcomes e.g., ↓ stigma ↑increase mental health knowledge ↑perceived resilience
3. Determine if a dose-response relationship exists with increased training relating to improved mental health outcomes

Data



- Web-based survey of 8,520 PSP collected in 2016- 2017
- 4,020 completed survey modules required to be included in the current analysis
- The survey was developed by the Canadian Institute for Public Safety Research, which includes members from each of the PSP professional bodies
- Participation was optional, participants self-selected to participate

Measures: Mental Health Training

Asked about exposure to 5 different types of training ever in their PSP role:

- 1) Critical Incident Stress Management (CISM)
- 2) Critical Incident Stress Debrief (CISD)
- 3) Mental Health First Aid (MHFA)
- 4) Road to Mental Readiness (R2MR)
- 5) Peer Support

* Not mutually exclusive categories

Measures: Mental Health Outcomes

Mental Health Knowledge:

- **Measured using the Mental Health Knowledge Schedule (MAKS)**
- 12-item validated scale that aims to measure a broad sense of mental health knowledge of common mental illnesses and other related info
- High scores = increased mental health knowledge

Measures: Mental Health Outcomes

Stigma Towards Mental Health:

- **Opening Minds Scale for Workplace Attitudes (OMSWA)**
 - 11-item scale that measures stigmatizing beliefs, attitudes and behaviours in the workplace
 - Low scores = less stigmatizing beliefs

Measures: Mental Health Outcomes

Mental Health Resiliency:

- **Brief Resiliency Scale (BRS)**

- 6-item validated scale designed to measure the ability to bounce back from stress.
- High scores= increased resiliency

Other covariates

- Sex
- Age (continuous)
- Marital status
- Provincial region of residence
- Ethnicity
- Education
- Years of service as a PSP (continuous)
- PSP category
- Any positive mental disorder screen (included: posttraumatic stress disorder, anxiety, social anxiety disorder, panic disorder, alcohol abuse, obsessive-compulsive disorder, persistent depressive disorder, bipolar I, bipolar II, cyclothymic disorder)

Prevalence of Exposure to Mental Health Training Among PSP Categories (n=4,020)

Training Type	Municipal/ Provincial Police % (n)	RCMP % (n)	Corrections % (n)	Firefighter % (n)	Paramedics % (n)	Call Centre % (n)	Total % (n)
Critical Incident Stress Management	37.5 (394)	31.5 (322)	35.0 (198)	46.6 (293)	30.6 (170)	44.9 (88)	36.4 (1,465)
Critical Incident Stress Debrief	34.3 (360)	29.7 (303)	29.5 (167)	45.3 (285)	29.1 (162)	34.2 (67)	33.4 (1,344)
Mental Health First Aid	18.6 (195)	14.2 (145)	18.0 (102)	17.2 (108)	9.9 (55)	19.9 (39)	16.0 (644)
Peer Support	27.1 (285)	18.5 (189)	18.4 (104)	28.9 (182)	22.8 (127)	26.5 (52)	23.4 (939)
R2MR	51.9 (545)	33.8 (345)	26.3 (149)	8.3 (52)	8.6 (48)	28.6 (56)	29.7 (1,195)

Volume of Training	Municipal/ Provincial Police % (n)	RCMP % (n)	Corrections % (n)	Firefighter % (n)	Paramedics % (n)	Call Centre % (n)	Total % (n)
None	25.4 (267)	42.0 (429)	34.3 (194)	35.8 (225)	54.5 (303)	34.2 (67)	36.9 (1,485)
1 Training Type	25.4 (267)	18.3 (187)	25.8 (146)	16.4 (103)	11.9 (66)	19.9 (39)	20.1 (808)
2+ Training Types	49.2 (517)	39.7 (406)	39.9 (226)	47.9 (301)	33.6 (187)	45.9 (90)	43.0 (1,727)

Relationship between Mental Health Training Types and Knowledge, Stigma and Resilience

- Mental Health Knowledge was shown to increase for CISM, MHFA and R2MR
- Stigma scores were shown to decrease for peer support and R2MR
- Resilience scores were shown to increase for MHFA
- Modest adjusted betas (impact of each type of training)
 - E.g., MHFA increased Resilience scores by .67 points (about 2.8%) on a 24-point scale (range 6-30)

Results: Dose-response relationship

Volume of Training	Mental Health Knowledge Scale Adjusted Beta (95%CI)	Stigma Scale Adjusted Beta (95%CI)	Mental Health Resilience Scale Adjusted Beta (95%CI)
1 Type of Training	0.58 (0.11, 1.05)*	-0.25 (-0.90, 0.40)	0.49 (0.10, 0.88)*
2 or More Types of Training	1.09 (0.70, 1.48)***	-1.03 (-1.56, -0.50)***	0.93 (0.61, 1.25)***



Discussion and conclusion

- 63.1% of PSP reported experiencing at least 1 form of mental health training
 - 43.0% of PSP reported two or more types of mental health training
- Independently, training programs were related to moderate improvements in positive mental health outcomes
- Independently, R2MR had the largest association with mental health knowledge and stigma, but was not significantly related to resilience
- More exposure to training programs helps but there are limits

Limitations

- The data were gathered from a web-based, optional survey, and therefore subject to self-selection bias
- This sample may not be representative of the entire Canadian PSP population
- The date of training and or exposure to the same type of training multiple times is unknown

Bridging the gap-Need for minimum standards

Identifiable targets for measurable change

Evidence-based rationale for those targets

Consistent professional delivery supported by a registered mental health professional

Thank you

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