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An assessment of mental health challenges and occupational stressors among public safety personnel senior leadership

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A B S T R A C T

Substantial evidence indicates frontline public safety personnel (PSP), including, but not limited to firefighters, paramedics, and police, report significantly more occupational stressors, mental health challenges, and suicidal behaviours than the general population, largely attributed to their public service. In contrast, there is a paucity of research assessing the mental health of PSP serving in senior leadership roles (i.e., Chiefs, Directors, or Deputy Chiefs). The current study assessed prevalence proportions of occupational stressors, mental health challenges, and suicidal behaviours among paramedics and police serving in senior leadership relative to PSP in other roles within the organization. Participants included Canadian paramedics and police officers ($n = 3717$). Independent samples *t*-tests were conducted to assess for differences in mean mental health disorder symptom and occupational stressor scores between professional roles (i.e., PSP senior leadership vs other serving PSP) within PSP sectors. Bootstrapped logistic regression models tested for differences in relative risk for screening positive for mental health disorders and suicidal behaviours, and a series of bootstrapped partial point biserial correlations tested for associations between individual occupational stressors and screening positive for any mental health disorder. Despite differences in occupational demands, responsibilities, individual organizational, and operational stressors between the roles, there were very few statistically significant differences between serving PSP and their senior leadership. PSP senior leadership may face specific barriers to accessing care as a function of their highly visible positions and relatively limited options for peer support. Additional research is needed to understand the contemporary mental health and wellbeing needs of PSP senior leadership.

1. Introduction

Public safety personnel (PSP; e.g., correctional workers, firefighters, paramedics, police, public safety communicators) are inevitably exposed to potentially psychologically traumatic events (PPTEs; e.g., actual or threatened death, serious injury or sexual violence; Andrews et al., 2022, 2024; Carleton et al., 2018a). PSP also experience other occupational stressors such as organizational stressors (e.g., dealing with co-workers, staff shortages) and operational stressors (e.g., shift work, risk of being injured on the job; Carleton et al., 2020; McCreary and Thompson, 2006; Ricciardelli, 2018). Frequent PPTE exposures and other occupational stressors are associated with posttraumatic stress injuries (PTSI; Heber et al., 2023) including posttraumatic stress disorder (PTSD), major depressive disorder (MDD), generalized anxiety disorder (GAD), and other physical and psychological comorbidities (Carleton et al., 2018b; Carleton et al., 2020; Sommer et al., 2020). Positive screening proportions for Canadian PSP reporting symptoms of one (i.e., 15.1 %) or more (i.e., 26.7 %) mental disorders (Carleton et al., 2018b) are much higher than diagnostic estimates for the general population (10.1 %; (Statistics Canada, 2012). Positive screenings for mental disorders are associated with an increased risk for death by suicide (O'Rourke et al., 2022; Stanley et al., 2016). Canadian PSP reported past-year and lifetime suicidal ideation (10.1 %; 27.8 %), suicidal planning (4.1 %; 13.3 %), and suicide attempts (.3 %; 4.6 %; Carleton et al., 2018b) compared to past-year and lifetime suicidal ideation (2.6 %; 12.0 %), suicide planning (.8 %; 4.2 %), and suicide attempts (.3 %; 3.1 %) among the general population (Statistics Canada, 2020).

PSP senior leadership (i.e., Chiefs, Directors, or Deputy Chiefs) are expected to provide effective solutions for frontline personnel mental health (Bothe et al., 2020; Oliphant, 2016). Most efforts have focused on frontline PSP, with has almost none on senior PSP leadership. Most interventions have focused on providing frontline PSP with training designed to bolster resilience or reduce stigma that produces small, time-limited effects (Anderson et al., 2020; Di Nota et al., 2021).

PSP senior leadership must be highly adaptable to societal challenges, as inappropriate or inadequate responses have the potential to

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increase the crises (Collins, 2020). PSP senior leadership are ultimately responsible for managing their organizations and operations, reflexively potentiating another stressor (Carleton, 2021; Cloutier and Barling, 2023; Heber et al., 2020; Stuber et al., 2021). PSP senior leadership also needs to balance service demands with available resourcing, while managing multiple political responsibilities, usually in public forums where their decisions, communications, and their team's behaviours are intensely scrutinized (Ricciardelli et al., 2024b). Organizationally appropriate leadership roles and responsibilities, as well as positive and effective leadership styles, have been associated with better employee mental health (Cloutier and Barling, 2023; Corrigan et al., 2002; Kelly and Hearld, 2020; Montano et al., 2023; Stuber et al., 2021). Prototypically good leadership can directly and indirectly support the mental health of frontline PSP, such that domain-specific leadership styles may also be independent protective factors for safeguarding PSP mental health (Corrigan et al., 2002; Kelly and Hearld, 2020; Montano et al., 2023). Prototypical leadership style expectations, inherent expectations of the exceptional mental health status of leadership, and even the glamourizing of organizational leadership, may all stigmatize mental health discourse among PSP Leadership (Cloutier and Barling, 2023; Corrigan et al., 2002, 2014; Stuber et al., 2021). Expected Leadership behaviours and attributes (e.g., charismatic, intelligent, sensitive, happy; Epitropaki et al., 2013; Epitropaki and Martin, 2004; Hanges et al., 2000; Trichas et al., 2017) are often considered incongruous with mental health challenges. The incongruity may contribute to perceptions of differential resource allocation, where leadership are perceived to have greater resources and therein overall well-being, despite having greater responsibilities (Cloutier and Barling, 2023; Stuber et al., 2021).

PSP senior leadership selections typically involve rigorous, highly variable processes with multiple stakeholders (e.g., job analysis, psychological assessments, leadership attributes; Collins, 2020). Leadership selections may interact with self-selection biases and demonstrated levels of resilience (Epitropaki, 2018). PSP senior leadership are generally presumed to have experienced PPTEs and other occupational stressors in their previous roles as frontline PSP (Carleton et al., 2018), which may have similarly impacted their mental health. Almost no peer-reviewed research has focuse on PSP leadership mental health (Ricciardelli et al., 2024b). Longer service has been associated with statistically significantly increased odds of screening positive for one or more mental health disorders (Ricciardelli et al., 2024a); however, participants working in the Administrative Headquarters, Community Administration/Management, or Institutional Administration/Management were statistically significantly less likely to screen positive for one or more mental health disorders than other participants (Ricciardelli et al., 2024a).

The few available results suggest important differences between the mental health of frontline PSP and their leadership (Ricciardelli et al., 2024a). To date, no studies have assessed for differences in occupational stressors, mental health disorder symptoms, and suicidal behaviours (i.e., ideation, planning, attempts) among a diverse sample of Canadian PSP senior leadership relative to frontline PSP. The current study was designed to assess for differences in screening prevalence proportions for occupational stressors, mental health disorders, and suicidal behaviours among different organizational roles (i.e., PSP senior leadership [Chiefs, Directors, or Deputy Chiefs] and PSP in other serving roles) within the paramedicine and policing PSP sectors. For the purposes of this paper, the term "Senior Leadership" is inclusive of Chiefs, Directors, and Deputy Chiefs. The current study was also designed to assess for cross-sectional associations between sectors, organizational roles, individual occupational stressor scores, positive screens for mental health disorders, and suicidal behaviours. Analyses of individual organizational and operational stressors are intended to highlight potentially actionable changes to benefit the mental health of PSP senior leadership. We expected 1) PSP senior leadership would be less likely than PSP serving in other roles to screen positive for mental health disorders or suicidal thoughts and behaviours (Carleton et al., 2018a,b,c; Ricciardelli et al., 2024a,b; Nisbet et al., 2023); but 2) no directional hypotheses were formed for occupational stressors among PSP senior leadership due to limited literature.

2. Methods

2.1. Procedure

Data were collected through a web-based self-report survey that was available in English or French. The survey was available for voluntary participation from September 1, 2016, to January 31, 2017. Participation was solicited through emails sent to employed PSP, consistent with voluntary response sampling methods. The study website provided each participant with a unique and random computer-generated code allowing for repeated nonduplicative survey entry to accommodate the challenging schedules of PSP. Participants provided written informed consent. The study was approved by the University of Regina Institutional Research Ethics Board (file No. 2016–107). A total of $n = 8520$ participants responded to at least one question in the survey, but only participants who completed the questions required for the current study foci were included in the current sample. All cases omitted from the current sample frame resulted from participants exiting the survey without completing the all questions. The current analyses included $n = 3717$ participants from the paramedicine and policing sectors. Participants provided self-report details about title or rank, occupational stressors, mental health disorder symptoms, and suicidal behaviours. The exact proportion of senior leadership to frontline PSP within each sector is dynamic and subject to change over time; nevertheless, historical estimates at the time of data collection indicate that the proportion of police senior leadership to other police was approximately .15 % (Statistics Canada, 2024), whereas the proportion of paramedic senior leadership to other paramedics is approximately .93 % (Fischer et al., 2017). The available data suggests the current sample is approximately proportionally representative of Canadian police and paramedic senior leadership in proportion to other police and paramedics, at .45 % and 2.2 %, respectively.

2.2. Self-Report measures

Occupational stressors were assessed using a combined questionnaire consisting of the 20-item Organizational Police Stress Questionnaire (PSQ-Org) and the 20-item Operational Police Stress Questionnaire (PSQ-Op; McCreary and Thompson, 2006). The PSQ-Org assesses stressors associated with the culture and organization within which the job is performed, including the impact of work on family and social life (e.g., fatigue, occupation-related health issues, not enough time to spend with friends and family). The PSQ-Op assesses stressors associated with doing the job itself (e.g., dealing with co-workers, staff shortages, inconsistent Leadership). None of the individual items are specific to policing and can be applied to other PSP sectors (Armstrong et al., 2016; Donnelly, 2012; McCreary et al., 2017; Shane, 2010; Summerlin et al., 2010). Each item is rated on a 7-point Likert scale ranging from 1 (i.e., no stress at all) to 7 (i.e., a lot of stress). The overall mean scores on the PSQ-Org and PSQ-Op were computed separately by averaging the individual items, per the original instructions (McCreary and Thompson, 2006). Cronbach's alpha indicated acceptable internal consistency for both measures in the study (PSQ-Org, $\alpha = .94$; PSQ-Op, $\alpha = .94$).

Mental health disorder symptoms were assessed using a web-based self-report survey. The survey included the PTSD Checklist for DSM-5 (PCL-5; Blevins et al., 2015), the 9-item Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001) for MDD, the 7-item GAD scale (Spitzer et al., 2006), the Social Interaction Phobia Scale (SIPS; Carleton et al., 2009) for Social Anxiety Disorder (SAD), the Panic Disorders Symptoms Severity Scale – Self-Report (PDSS-SR; Shear et al., 1997) for Panic Disorder (PD), the Alcohol Use Disorders Identification Test (AUDIT;

Table 1
Sociodemographic characteristics of PSP senior leadership (i.e., Chiefs, Directors, or Deputy Chiefs) and PSP in other roles within the organization by PSP sector (n = 3717).

		Paramedics			All Police (RCMP, Municipal, Provincial)		
	Total Sample	Other Paramedics	Senior Leadership	Total	Other Police	Senior Leadership	Total
	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Sex							
Male	70.1 (2607)	60.4 (486)	61.1 (11)	60.5 (497)	73.1 (2100)	76.9 (10)	72.9 (2110)
Female	8.7 (325)	39.6 (318)	38.9 (7)	39.5 (325)	26.9 (771)	^	†
Gender							
Man	69.9 (2599)	60.1 (483)	61.1 (11)	60.1 (494)	72.7 (2095)	76.9 (10)	72.7 (2105)
Woman	8.7 (325)	39.6 (318)	38.9 (7)	39.5 (325)	26.7 (768)	^	†
Gender Diverse (i.e., Two-Spirit, Non-Binary, Other – Please Specify)	†	^	.0 (0)	†	^	.0 (0)	†
Age							
19-29	†	^	.0 (0)	†	4.0 (114)	.0 (0)	†
30-39	†	15.6 (125)	^	†	26.6 (759)	.0 (0)	26.2 (759)
40-49	†	31.7 (254)	44.4 (8)	31.9 (262)	40.4 (1152)	^	†
50-59	24.4 (907)	28.7 (230)	33.3 (6)	28.7 (236)	25.8 (737)	76.9 (10)	25.8 (747)
60 and older	†	4.7 (38)	^	^	3.2 (92)	.0 (0)	3.2 (92)
Ethnicity							
Asian	.9 (35)	.9 (7)	.0 (0)	.9 (7)	1.0 (28)	.0 (0)	1.0 (28)
Black	†	.0 (0)	.0 (0)	.0 (0)	.5 (14)	.0 (0)	†
First Nations/Inuit/Metis	†	2.6 (21)	^	†	4.9 (142)	.0 (0)	4.9 (142)
Hispanic	†	^	.0 (0)	†	.3 (10)	.0 (0)	.3 (10)
South Asian	†	.0 (0)	.0 (0)	.0 (0)	.6 (17)	.0 (0)	.6 (17)
White/Caucasian	†	94.0 (754)	94.4 (17)	93.8 (771)	89.9 (2590)	^	†
Other	†	1.7 (14)	.0 (0)	†	1.6 (47)	.0 (0)	1.6 (47)
Marital Status							
Single	†	18.6 (149)	^	†	7.9 (225)	.0 (0)	7.8 (225)
Separated/Divorced	†	9.6 (77)	27.8 (5)	10.0 (82)	10.8 (309)	^	†
Married/Common-Law	78.6 (2920)	71.7 (573)	61.1 (11)	71.5 (584)	81.3 (2324)	92.3 (12)	80.7 (2336)
Province of Residence							
Western Canada (i.e., B.C., AB., SK., MB.)	52.3 (1945)	60.3 (484)	72.2 (13)	60.5 (497)	51.3 (1443)	38.5 (5)	50.0 (1448)
Eastern Canada (i.e., Ont., Que.)	†	24.6 (197)	^	†	33.3 (937)	46.2 (6)	32.6 (943)
Atlantic Canada (i.e., N.B., N.S., P.E.I., N.L.)	†	15.1 (121)	^	†	15.4 (433)	^	†
Northern Canada (i.e., YK, NWT, NVT)	–	–	–	–	–	–	–
Education							
High school graduate or less	†	4.9 (38)	^	†	8.8 (248)	.0 (0)	8.6 (248)
Some post-secondary school	†	73.5 (565)	55.6 (10)	70.0 (575)	51.3 (1452)	^	†
University degree/4-year college or higher	35.3 (1312)	21.6 (166)	33.3 (6)	20.9 (172)	39.9 (1130)	76.9 (10)	39.4 (1140)
Years of Service							
Less than 4 years	†	36.7 (290)	33.3 (6)	36.0 (296)	11.6 (330)	^	†
4–9 years	†	17.2 (136)	^	†	19.8 (562)	.0 (0)	19.4 (562)
10–15 years	†	16.6 (131)	^	†	25.3 (718)	.0 (0)	24.8 (718)
More than 15 years	39.8 (1478)	29.5 (233)	55.6 (10)	29.6 (243)	43.2 (1227)	66.7 (8)	42.6 (1235)
Total Sample	100 (3717)	100 (804)	100 (18)	100 (822)	100 (2882)	100 (13)	100 (2895)

Notes. Total percentages may not sum to 100 and due to non-response or responding "other."
"^" Sample size between 1 and 4, so data not presented.
"†" Data that was intentionally withheld to mitigate the potential to identify a participant or small sample of participants.
AUDIT = Alcohol Use Disorders Identification Test; GAD-7 = Generalized Anxiety Disorder Scale; PCL-5 = Posttraumatic Stress Disorder Checklist for DSM-5; PDSS-SR = Panic Disorder Symptoms Severity Scale, Self-Report; PHQ-9 = Patient Health Questionnaire; SIPS = Social Interaction Phobia Scale.

Table 2
Mental health disorder symptom characteristics of PSP senior leadership (i.e., Chiefs, Directors, or Deputy Chiefs) compared to PSP in other roles within the organization by PSP sector.

	Posttraumatic Stress Disorder (PCL-5)	Major Depressive Disorder (PHQ-9)	Generalized Anxiety Disorder (GAD-7)	Social Anxiety Disorder (SIPS)	Panic Disorder (PDSS-SR)	Alcohol Use Disorder (AUDIT)
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Paramedics						
Other Paramedics	22.40 (18.50)	7.13 (6.08)	5.69 (4.99)	11.81 (10.96)	2.82 (4.52)	6.12 (5.14)
Senior Leadership	20.39 (15.15)	7.13 (4.34)	6.93 (4.88)	9.27 (7.49)	2.20 (4.09)	7.29 (5.97)
Test Statistic[a]	t (815) = .46	t (754) = .00	t (735) = -.96	t (723) = .90	t (711) = 1.69	t (597) = .51
Effect Size (Cohen's d)	.109	−.001	−.250	.234	.138	−.225
All Police[b]						
Other Police	21.87 (19.59)	6.45 (5.93)	5.26 (5.15)	9.82 (10.74)	2.53 (4.37)	5.89 (4.79)
Senior Leadership	20.00 (16.60)	7.00 (5.85)	6.54 (4.94)	6.92 (9.60)	1.62 (2.87)	6.20 (3.85)
Test Statistic[a]	t (2850) = .34	t (2734) = -.34	t (2676) = -.90	t (2632) = .97	t (2503) = .75	t (2242) = -.20
Effect Size (Cohen's d)	.095	−.094	−.249	.270	.209	−.064

AUDIT = Alcohol Use Disorders Identification Test; GAD-7 = Generalized Anxiety Disorder Scale; PCL-5 = Posttraumatic Stress Disorder Checklist for DSM-5; PDSS-SR = Panic Disorder Symptoms Severity Scale, Self-Report; PHQ-9 = Patient Health Questionnaire; SIPS = Social Interaction Phobia Scale.
Notes.
[a] The test results comparing scores on mental disorder screening measures across categorical participant demographics; t (degrees of freedom) = test statistic. *p < .05, **p < .01, ***p < .001 – Statistically significantly different; Bonferroni adjustment was applied to alpha level to control type I error in multiple comparisons.
[b] Police features all RCMP, Municipal, Provincial police captured within the survey.

Saunders et al., 1993) for Alcohol Use Disorder (AUD). An index PPTE, meaning participants selected the event that was currently causing the most distress, single worst PPTE, or most distressing event which allowed participants to keep that event in mind when rating their past month symptoms using the PCL-5 items. Positive screens on the PCL-5 require a minimum total score of >32 and a minimum endorsement of symptoms in each of the four PTSD symptom clusters (Blevins et al., 2015). For each of the other screening questionnaires, participants reported symptoms per the specific scale instructions: PHQ-9, past 14 days; GAD-7 and PDSS-SR, past 7 days; AUDIT, past 12 months, and SIPS, no specific time window. Published recommendations were used to determine positive screens: PHQ-9 total score >9 (Manea et al., 2015); GAD-7 total score >9 (Swinson, 2006); SIPS total score >20 (Carleton et al., 2009); PDSS-SR total score >7 (Shear et al., 2001); and AUDIT total score >15 (Gache et al., 2005). Cronbach's alpha indicated acceptable internal consistency for the PCL-5 (α = .96), PHQ-9 (α = .90), GAD-7 (α = .92), SIPS (α = .94), PDSS-SR (α = .93), and AUDIT (α = .82) in the current sample.

Past 12-month and lifetime suicidality were assessed using the categories of suicidal ideation, planning, and attempts by means of a series of binary (i.e., yes/no) questions based on the suicide-specific questions surveyed by Statistics Canada (Statistics Canada, 2013, 2016a). Suicidal ideation was assessed by asking "Have you ever contemplated suicide?"; "Has this happened in the past 12 months?", suicide plans were assessed by asking "Have you ever made a serious plan to attempt suicide?"; "Has this happened in the past 12 months?", and suicide attempts were assessed by asking "Have you ever attempted suicide?"; "Did this happen in the past 12 months?"

Sociodemographic covariates included sex (i.e., male, female), gender (i.e., man, woman, gender diverse [nonbinary, two-spirit, transgender, other – please specify]), age (i.e., 19–29 years, 30–39 years, 40–49 years, 50–59 years, 60+ years), marital status (i.e., single, married/common-law, separated/divorced/widowed), ethnicity (i.e., Asian, Black, First Nations/Inuit/Metis, Hispanic, South Asian, White/Caucasian, Other – Please Specify), geographic location (i.e., Western Canada, Eastern Canada, Atlantic Canada, Northern Canada), highest level of education (i.e., high school or less, some post-secondary less than a 4-year college/university program, or a university degree/4-year college degree or higher), and total years of service (i.e., less than 4 years, 4–9 years, 10–15 years, or more than 15 years). Participants were also grouped into one of two PSP sectors (i.e., paramedics, or police [RCMP, municipal police, provincial police]), and dichotomized into two role categories within each PSP sector (i.e., PSP senior leadership [Chiefs, Directors and Deputy Chiefs only], and all other PSP roles (i.e., Captain, Commander, Lieutenant, Sergeant, Superintendent, Supervisor, Team Leader, Constable).

2.3. Analyses

Mean scores were computed for each of the individual items, subscales of the PSQ-Org and -Op, and mental health disorder symptom scales. Prevalence of positive mental disorder and suicidal behaviours were based on self-reported measures and calculated as percentages. Normality assumptions were assessed with Kolmogorov-Smirnov tests. Independent samples t-tests were conducted to assess differences in mental health disorder symptom mean scores and occupational stressor mean scores between PSP roles within each PSP sector. Bootstrapped logistic regression models were conducted to test for: 1) associations between PSP roles within each sector and screening positive for mental health disorders on the self-report mental disorder questionnaires; and 2) associations between PSP roles within each sector and screening positive for past 12-month or lifetime suicidal ideation, planning, and attempts. Odds ratios adjusted for sociodemographic covariates (AOR's) and their 95 % confidence intervals (CIs) were reported. A series of bootstrapped partial point-biserial correlation models were conducted to test for associations between individual occupational stressor scores and screening positive for any mental health disorder, controlling for sociodemographic covariates. To measure response quality and the potential prevalence of inattentive responding, a series of control questions were embedded throughout the survey (i.e., This is a control question, please select "Strongly Disagree"), where answering incorrectly to a control question would result in omission from the current analyses. No participants responded incorrectly to the control questions and therefore no participants were excluded due to inattentive responding. Missing data were addressed using listwise deletion for all analyses to afford complete case analysis on a scale-by-scale basis, resulting in the

Table 3
Bootstrapped adjusted odds and positive screen proportions for mental health disorders of PSP senior leadership (i.e., Chiefs, Directors, or Deputy Chiefs) compared to PSP in other roles within the organization by PSP sector.

	Posttraumatic Stress Disorder (PCL-5)		Major Depressive Disorder (PHQ-9)		Generalized Anxiety Disorder (GAD-7)		Social Anxiety Disorder (SIPS)		Panic Disorder (PDSS-SR)		Alcohol Use Disorder (AUDIT)		Any Disorder	
	% (*n*)	AOR [95 % CI]	% (*n*)	AOR [95 % CI]	% (*n*)	AOR [95 % CI]	% (*n*)	AOR [95 % CI]	% (*n*)	AOR [95 % CI]	% (*n*)	AOR [95 % CI]	% (*n*)	AOR [95 % CI]
Paramedics														
Other Paramedics	23.8 (190)	1.00	10.2 (76)	1.00	20.6 (149)	1.00	20.1 (143)	1.00	15.2 (106)	1.00	7.0 (41)	1.00	40.8 (328)	1.00
Senior Leadership	^	.43 [.10,1.88]	^	.63 [.08,4.83]	33.3 (5)	1.92 [.65,5.71]	^	.61 [.14,2.73]	^	.40 [.05,3.07]	^	2.21 [.48,10.22]	38.9 (7)	.92 [.35,2.41]
All Police[a]														
Other Police	23.7 (673)	1.00	8.8 (241)	1.00	19.0 (506)	1.00	14.3 (376)	1.00	12.0 (300)	1.00	5.5 (122)	1.00	37.2 (1073)	1.00
Senior Leadership	^	.59 [.13,2.65]	^	.86 [.11,6.65]	^	1.28 [.35,4.67]	^	.50 [.07,3.84]	^	.61 [.08,4.70]	.0 (0)	–	^	.75 [.23,2.44]

AOR = Odds ratio adjusted for gender, age, education, ethnicity, marital status, province of residence, and years of service; 95 % CI = 95 % Confidence Interval.
Total percentages may not sum to 100 due to non-response or responding "other."
^Sample size between 1 and 4, so data not presented. "–" No data available. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$ – Statistically significantly different.
AUDIT = Alcohol Use Disorders Identification Test; GAD-7 = Generalized Anxiety Disorder Scale; PCL-5 = Posttraumatic Stress Disorder Checklist for DSM-5; PDSS-SR = Panic Disorder Symptoms Severity Scale, Self-Report; PHQ-9 = Patient Health Questionnaire; SIPS = Social Interaction Phobia Scale.
Notes.
[a] Police features all RCMP, Municipal, Provincial police captured within the survey.

omission of $n = 4803$ participants from the original full sample ($n = 8520$) for a final analytical frame of $n = 3717$ participants. Bonferroni adjustments were adopted ($\alpha < .05$, two-sided tests) for all applicable analyses to control the familywise error rate resulting from multiple testing. Bootstrapped models used 5000 simple bootstrap random samples to augment the model fitment criteria, to determine the stability of the results, and to determine the replicability of the results. Effect size estimates for comparisons used Cohen's *d* values (i.e., small, $d = .20$; medium, $d = .50$; large, $d = .80$; Cohen, 2013), as appropriate. SPSS v.30 Premium was used to conduct the quantitative analyses.

3. Results

Participant sociodemographic characteristics are presented in Table 1. Differences in mental health disorder symptom scores across roles within each PSP sector are presented in Table 2. Kolmogorov-Smirnov tests indicated that no data distributions departed from normality; accordingly, parametric statistical tests were used. There were no statistically significant differences in self-reported mental health disorder symptoms between paramedic senior leadership compared to other serving paramedic roles, nor were there statistically significant differences in self-reported mental health disorder symptoms between police senior leadership compared to other serving police roles.

Table 3 presents the prevalence of positive mental health disorder screens for each role within PSP sectors. There were no statistically significant associations between PSP roles within each sector, and the odds of screening positive for any mental health disorder, or multiple mental health disorders. The odds of screening positive for any mental health disorder were not statistically different between senior leadership and other serving roles within either of the PSP sectors.

Table 4 presents the prevalence of suicidal ideation, planning, and attempts reported within the past-12-months and lifetime. There were no statistically significant differences in risk of screening positive for lifetime suicide attempts, or past 12-month suicidal ideation or planning between roles within either PSP sector. No statistical comparisons could be made for past 12-month suicide attempts because no PSP senior leadership endorsed a suicide attempt or suicidal planning within the past-12 months. There were no statistically significant differences in relative risk of screening positive for lifetime or past 12-month suicidal ideation, planning, or attempts between PSP roles, indicating that PSP senior leadership were not statistically significantly different in their likelihood to report suicidal behaviours compared to other serving PSP.

Table 5 presents differences in perceived occupational stressors across roles within each PSP sector. Among paramedics, statistically significant differences were observed for only 6/20 organizational stressors (Cohen's $d = -1.21$ to $-.42$). Paramedics also reported statistically significant differences for 6/20 operational stressors (Cohen's $d = -.61$ to .51). Among police, statistically significant differences were observed for only 4/20 organizational stressors (Cohen's $d = .50$ to .68). Police also reported statistically significant differences for 6/20 operational stressors (Cohen's $d = .50$ to .89), as well as the mean organizational stress score (Cohen's $d = .41$). Detailed groupwise item comparisons were also presented in Table 5.

Bootstrapped partial point biserial associations between individual operational and organizational stressor scores and positive screens for any mental health disorder among senior leadership within each PSP sector are provided in Table 6. Among paramedic senior leadership, there were statistically significant positive associations between one or more mental health disorders and 5/20 organizational stressors ($r = .53$ to .76), the mean organizational stressor score ($r = .53$), 3/20 operational stressors ($r = .56$ to .77), and the mean operational stressor score ($r = .54$). Among police senior leadership, there were statistically significant positive associations between one or more mental health disorders and only 1/20 organizational stressors (i.e., feeling like you always have to prove yourself to the organization; $r = .85$), and 3/20 operational stressors ($r = .69$ to .81). Among senior leadership from both

Table 4
Bootstrapped adjusted odds and positive screen proportions for suicidal ideation, planning, and attempts of PSP senior leadership (i.e., Chiefs, Directors, or Deputy Chiefs) compared to PSP in other roles within the organization by PSP sector.

	Past 12 Months						Lifetime					
	Suicidal Ideation		Suicide Planning		Suicide Attempt		Suicidal Ideation		Suicide Planning		Suicide Attempt	
	% (n)	AOR [95 % CI]	% (n)	AOR [95 % CI]	% (n)	AOR [95 % CI]	% (n)	AOR [95 % CI]	% (n)	AOR [95 % CI]	% (n)	AOR [95 % CI]
Paramedics												
Other Paramedics	12.9 (104)	1.00	5.8 (47)	1.00	.7 (6)	1.00	35.0 (281)	1.00	19.0 (153)	1.00	8.1 (65)	1.00
Senior Leadership	^	.26 [.03,2.21]	.0 (0)	–	.0 (0)	–	38.9 (7)	1.27 [.45,3.54]	38.9 (7)	4.30 [.51,36.41]	^	1.29 [.24,6.88]
All Police[a]												
Other Police	8.0 (230)	1.00	3.2 (92)	1.00	.2 (5)	1.00	20.0 (575)	1.00	8.5 (245)	1.00	1.9 (56)	1.00
Senior Leadership	^	.35 [.04,3.16]	.0 (0)	–	.0 (0)	–	38.5 (5)	2.10 [.69,6.45]	^	.29 [.03,2.58]	^	1.02 [.99,1.04]

AOR = Odds ratio adjusted for gender, age, education, ethnicity, marital status, province of residence, and years of service; 95 % CI = 95 % Confidence Interval. Total percentages may not sum to 100 due to non-response or responding "other."
Lettered superscripts within each column category indicate statistically significant differences between category groups with different letters on outcome at $p \leq .05$.
^Sample size between 1 and 4, so data not presented. "-" No data available.*$p < .05$, **$p < .01$, ***$p < .001$ – Statistically significantly different.
Notes.
[a] Police features all RCMP, Municipal, Provincial police captured within the survey.

PSP sectors, feeling like you always have to prove yourself to the organization, was consistently statistically significantly positively associated with screening positive for one or more mental health disorders ($r = .36$ to .85).

4. Discussion

Contrasting the a-priori study hypotheses, PSP senior leadership were not statistically significantly less likely to screen positive for any mental health disorder, or one or more mental health disorders, than other serving PSP within the same PSP sectors; accordingly, within each sector, there was no evidence of differences mental health challenges. The current results suggest that senior Canadian PSP leadership experience disproportionately more mental health challenges compared to the general population, and comparable mental health challenges as compared to other serving PSP roles within each respective PSP sector. Senior Canadian PSP leaders began as frontline PSP, and experienced PPTEs and other occupational stressors, which may partially elucidate the statistical similarities in mental health challenges. Reported AUD symptoms also did not statistically significantly differ between roles for any sector, indicating that alcohol may be collectively utilized maladaptive coping strategy in both sectors and across PSP roles (Lindsay and Shelley, 2009; Ménard and Arter, 2013).

Statistically significant differences in perceived levels of stress associated with individual occupational stressors indicated differences in job-related duties, responsibilities, and perceived stress between the two role categories within each sector. Comparable levels of perceived stress associated with organizational and operational stress total scores were reported among the two role categories within each PSP sector, whereas senior leadership consistently reported higher levels of stress associated with excessive administrative duties, too much computer work, and paperwork, thereby evidencing the increased administrative burdens inherent to senior leadership roles within PSP organizations. Further research is required to understand the impact of excessive administrative duties on senior PSP leadership.

Associations between occupational stressors and screening positive for mental health disorders among PSP senior leadership were comparable to frontline PSP (Carleton et al., 2020), indicating that PSP senior leadership would also benefit from mental health safeguarding programs. Sector-specific differences in perceived stress are likely attributable to unique organizational cultures and occupational demands, and may be systemically associated with leadership resources, policy changes, workload expectations, or other currently unidentified considerations. The single organizational stressor consistently and statistically significantly positively associated with screening positive for one or more mental health disorder across both sectors was, "feeling like you always have to prove yourself to the organization." Perceiving perpetual pressure to demonstrate value to their organization and colleagues may propagate fears of occupational vulnerability and instability in the already personally and professionally taxing PSP occupations (Boren and Veksler, 2015; Carleton et al., 2020; Fan et al., 2015; Kung and Chan, 2014). The current results support and extend previous work demonstrating pervasive associations between perceived operational and organizational stressors and adverse mental health status among Canadian PSP and their senior leadership (Carleton et al., 2020).

Multiple and diverse PPTE exposures are inherent to PSP careers (Andrews et al., 2024; Carleton et al., 2018c), while exposures to other occupational stressors may be mitigated (Ricciardelli et al., 2020). Reduce occupational stressors and increasing mental health supports for frontline personnel largely falls onto PSP senior leadership. To effectively support of frontline PSP, senior leadership is prototypically responsible for finding and implementing evidence-based policy solutions to broadly mitigate PPTEs and mental health challenges, which may include managerial decisions and policy changes; however, further PSP-specific research is required (Jacobs, 2019). PSP senior leadership responsibilities include ensuring departments/services run effectively, and show financial accountability, as well as balancing relationships with key stakeholders including municipal and provincial governments, local community organizations, unions, and the media (Murphy and McKenna, 2007; Murray, 2015), building on occupational stressors experienced from frontline service. Currently, the extent of training offered to senior leadership to manage financial accountability and various stakeholder dynamics is unclear.

PSP senior leadership were not statistically significantly less likely to screen positive for one or more mental health disorders, nor were they statistically significantly less likely to endorse lifetime suicidal behaviours compared to the PSP that they support. The results indicate that the mental health and wellbeing of PSP senior leadership should also be considered when developing proactive and organization-specific mental health safeguarding programs. The extant literature suggests additional supports will likely need to be tailored to accommodate different challenges across PSP roles and ranks (Ricciardelli et al., 2024a,b).

Table 5
Occupational stressors of PSP senior leadership (i.e., Chiefs, Directors, or Deputy Chiefs) compared to PSP in other roles within the organization by PSP sector.

	Paramedics					All Police[a]				
	Other Paramedics	Senior Leadership	Test Statistic	Sig.	Effect Size	Other Police	Senior Leadership	Test Statistic	Sig.	Effect Size
	Mean (SD)	Mean (SD)	*t*	*p*	Cohen's d	Mean (SD)	Mean (SD)	*t*	*p*	Cohen's d
Organizational Stressors										
Average Organizational Stress Score	2.46 (1.23)	2.97 (1.21)	−1.77	.077	−.340	2.76 (1.33)	2.41 (1.09)	1.15	.249	.228
Dealing with co-workers	2.92 (1.72)	4.07 (1.58)	−3.05	.002	−.560	3.01 (1.77)	3.58 (1.73)	−1.19	.236	−.265
The feeling that different rules apply to different people (e.g., favouritism)	3.09 (1.90)	3.07 (1.94)	.04	.965	.009	3.16 (1.92)	2.42 (2.07)	1.29	.198	.306
Feeling like you always have to prove yourself to the organization	3.00 (1.90)	4.00 (1.65)	−2.53	.011	−.448	3.14 (1.93)	3.75 (1.54)	−1.42	.155	−.275
Excessive administrative duties	1.90 (1.81)	4.53 (1.68)	−6.56	.000	−1.214	3.11 (1.91)	3.25 (2.26)	−.22	.824	−.056
Constant change in policy/legislation	2.74 (1.92)	3.87 (1.73)	−2.73	.006	−.496	2.80 (1.87)	2.75 (2.01)	.09	.929	.021
Staff shortages	3.25 (2.11)	4.33 (2.13)	−2.13	.034	−.416	3.78 (1.96)	3.67 (1.61)	.25	.806	.049
Bureaucratic red tape	3.34 (2.09)	4.07 (1.87)	−1.63	.103	−.295	3.55 (1.91)	3.08 (1.98)	.85	.393	.198
Too much computer work	1.44 (1.60)	2.13 (2.39)	−1.22	.223	−.296	2.59 (1.89)	2.92 (2.07)	−.57	.566	−.138
Lack of training on new equipment	1.98 (1.76)	1.73 (1.83)	.57	.566	.114	2.09 (1.78)	1.25 (1.66)	1.82	.069	.394
Perceived pressure to volunteer free time	1.38 (1.70)	2.93 (2.25)	−2.90	.004	−.665	1.85 (1.92)	2.58 (2.43)	−1.08	.280	−.283
Dealing with supervisors	2.60 (1.99)	2.47 (2.13)	.26	.798	.052	2.69 (1.97)	2.42 (2.07)	.47	.639	.110
Inconsistent leadership style	3.61 (2.08)	2.67 (2.32	1.70	.089	.355	3.38 (2.07)	2.83 (1.85)	1.07	.285	.225
Lack of resources	3.42 (2.06)	3.73 (2.28)	−.57	.568	−.118	3.46 (2.01)	3.17 (1.75)	.60	.551	.123
Unequal sharing of work responsibilities	2.88 (2.11)	3.20 (2.08)	−.65	.519	−.124	2.95 (2.06)	2.83 (2.12)	.20	.839	.047
If you are sick or injured, your co-workers seem to look down on you	1.56 (1.93)	1.73 (1.94)	−.37	.713	−.072	1.97 (2.07)	.50 (.90)	5.82	.000	.679
Leaders over-emphasize the negatives (e.g., supervisor evaluations, public complaints)	2.79 (2.16)	2.47 (2.03)	.66	.509	.123	2.52 (2.07)	1.33 (1.72)	2.49	.013	.496
Internal investigations	2.14 (2.07)	2.13 (1.51)	.03	.978	.004	2.13 (2.12)	1.92 (1.83)	.41	.680	.085
Dealing with the court system	.96 (1.53)	1.07 (1.44)	−.32	.749	−.060	2.34 (1.85)	1.08 (1.38)	3.28	.001	.602
The need to be accountable for doing your job	2.26 (1.89)	2.93 (1.58)	−1.77	.077	−.305	2.43 (1.92)	1.67 (1.67)	1.64	.102	.337
Inadequate equipment	2.09 (1.91)	2.27 (1.83)	−.41	.680	−.078	2.22 (1.88)	1.17 (1.27)	2.97	.003	.504
Operational Stressors										
Average Operational Stress Score	2.29 (1.21)	2.35 (1.10)	−.23	.819	−.042	2.33 (1.34)	1.74 (.78)	2.71	.007	.407
Shift work	2.99 (2.04)	1.73 (1.94)	2.72	.007	.512	2.34 (2.11)	.73 (1.27)	4.54	.000	.702
Working alone at night	.96 (1.69)	.73 (1.67)	.58	.564	.111	1.69 (2.06)	.33 (.89)	5.44	.000	.631
Over-time demands	2.11 (2.09)	1.93 (1.98)	.38	.703	.071	1.98 (1.99)	2.08 (2.11)	−.17	.865	−.040
Risk of being injured on the job	2.60 (1.96)	1.67 (1.72)	2.26	.024	.403	1.94 (1.88)	.25 (.45)	13.04	.000	.886
Work-related activities on days off (e.g., court, community events)	1.21 (1.60)	2.27 (2.15)	−2.08	.038	−.480	2.01 (1.88)	2.50 (2.02)	−.87	.383	−.207
Potentially psychologically traumatic events (e.g., motor vehicle accidents, domestics, death, injury)	2.74 (1.87)	2.27 (2.22)	.89	.373	.192	2.44 (2.03)	.83 (1.11)	5.19	.000	.740
Managing your social life outside of work	2.28 (1.82)	1.80 (1.15)	1.72	.085	.241	2.04 (1.80)	1.33 (2.06)	1.24	.215	.307
Not enough time available to spend with friends and family	2.84 (1.88)	2.87 (1.60)	−.08	.938	−.014	2.62 (1.90)	2.67 (1.67)	−.11	.914	−.022
Paperwork	1.79 (1.66)	3.13 (2.00)	−2.82	.005	−.614	2.72 (1.86)	2.75 (1.82)	−.06	.953	−.013
Eating healthy at work	2.75 (1.84)	2.80 (1.26)	−.16	.869	−.024	2.53 (1.83)	1.92 (1.83)	1.20	.231	.272
Finding time to stay in good physical condition	3.15 (1.80)	3.27 (1.71)	−.29	.769	−.055	3.07 (1.84)	2.92 (1.44)	.37	.708	.071
Fatigue (e.g., shift work, over-time)	3.64 (1.88)	3.07 (1.91)	1.25	.211	.246	3.15 (1.98)	3.08 (1.38)	.18	.856	.032
Occupation-related health issues (e.g., back pain)	2.69 (2.06)	2.47 (2.00)	.46	.645	.088	2.73 (1.98)	2.17 (2.04)	.99	.323	.229
Lack of understanding from family and friends about your work	2.20 (1.92)	1.80 (1.74)	.96	.336	.175	1.97 (1.86)	2.25 (2.14)	−.47	.638	−.117
Making friends outside the job	1.97 (1.91	1.53 (1.60)	1.15	.251	.198	1.75 (1.84)	.75 (1.14)	3.14	.002	.498
Upholding a "higher image" in public	1.96 (1.80	3.27 (1.94)	−2.84	.005	−.578	2.18 (1.93)	1.92 (1.93)	.48	.628	.110
Negative comments from the public	2.12 (1.90	2.67 (1.76)	−1.31	.191	−.242	2.78 (1.96)	2.42 (2.11)	.61	.539	.146
Limitations to your social life (e.g., who your friends are, where you socialize)	2.06 (1.89	2.40 (1.64)	−.87	.386	−.153	2.11 (1.90)	1.08(1.68)	2.20	.028	.460
Feeling like you are always on the job	2.30 (1.97	3.33 (1.91)	−2.26	.024	−.431	2.59 (2.00)	2.83 (1.64)	−.53	.599	−.104
Friends/family feel the effects of the stigma associated with your job	1.67 (1.80	2.00 (1.20)	−1.14	.255	−.166	2.12 (1.90)	2.50 (1.88)	−.73	.467	−.164

Notes. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$ – Statistically significantly different.
[a] Police features all RCMP, Municipal, Provincial police captured within the survey.

Maintaining the psychological wellbeing of PSP senior leadership is critical to promote the safeguarding of all PSP mental health, given the demonstrable adverse effects of diminished psychological resources on leadership behaviours (Byrne et al., 2014).

4.1. Strengths and limitations

The current study strengths include an overall large sample of Canadian PSP and the disaggregation of roles and responsibilities by self-

Table 6
Bootstrapped partial associations between occupational stressors and screening positive for any mental health disorder among PSP senior leadership (i.e., Chiefs, Directors, or Deputy Chiefs) by sector.

	Paramedics		Police[a]	
	Senior Leadership	Sig.	Senior Leadership	Sig.
	Pearson's *r* [95 % CI]	p	Pearson's *r* [95 % CI]	p
Organizational Stressors				
Average Organizational Stress Score	.526 [.002,.823]	.044	.358 [-.289,.781]	.253
Dealing with co-workers	.317 [-.249,.722]	.249	.364 [-.284,.783]	.245
The feeling that different rules apply to different people (e.g., favouritism)	−.016 [-.536,.513]	.956	.337 [-.311,.771]	.284
Feeling like you always have to prove yourself to the organization	.762 [.395,.919]	.001	.846 [.516,.958]	.001
Excessive administrative duties	.525 [.000,.823]	.045	.369 [-.278,.786]	.238
Constant change in policy/ legislation	.693 [.265,.893]	.004	.181 [-.454,.694]	.572
Staff shortages	.505 [-.026,.814]	.055	.078 [-.533,.636]	.810
Bureaucratic red tape	.671 [.226,.884]	.006	.336 [-.312,.771]	.286
Too much computer work	.144 [-.412,.621]	.609	.316 [-.333,.761]	.318
Lack of training on new equipment	.255 [-.311,.687]	.359	−.136 [-.669,.490]	.674
Perceived pressure to volunteer free time	.441 [-.109,.784]	.100	.209 [-.431,.709]	.515
Dealing with supervisors	.078 [-.465,.579]	.781	−.078 [-.635,.533]	.810
Inconsistent leadership style	.048 [-.489,.558]	.866	.182 [-.453,.695]	.571
Lack of resources	.607 [.121,.858]	.016	.287 [-.361,.748]	.366
Unequal sharing of work responsibilities	.443 [-.106,.785]	.098	.285 [-.362,.747]	.369
If you are sick or injured, your co-workers seem to look down on you	.193 [-.369,.651]	.491	−.031 [-.607,.566]	.924
Leaders over-emphasize the negatives (e.g., supervisor evaluations, public complaints)	−.032 [-.547,.501]	.910	−.027 [-.604,.569]	.933
Internal investigations	.255 [-.311,.688]	.358	−.131 [-.667,.494]	.685
Dealing with the court system	.288 [-.279,.706]	.299	−.110 [-.654,.510]	.734
The need to be accountable for doing your job	.213 [-.351,.663]	.447	−.053 [-.620,.551]	.871
Inadequate equipment	.252 [-.314,.686]	.365	.244 [-.400,.726]	.446
Operational Stressors				
Average Operational Stress Score	.544 [.027,.831]	.036	.509 [-.151,.855]	.110
Shift work	.398 [-.160,.763]	.142	.458 [-.216,.836]	.157
Working alone at night	.378 [-.183,.753]	.165	−.315 [-.761,.333]	.319
Over-time demands	.508 [-.023,.815]	.053	.811 [.428,.947]	.001
Risk of being injured on the job	.398 [-.160,.763]	.142	−.408 [-.803,.235]	.188
Work-related activities on days off (e.g., court, community events)	.478 [-.062,.802]	.071	.130 [-.494,.666]	.686
Potentially psychologically traumatic events (e.g., motor vehicle accidents, domestics, death, injury)	.424 [-.129,.776]	.115	.335 [-.313,.770]	.287
Managing your social life outside of work	−.016 [-.536,.513]	.955	.055 [-.549,.622]	.865
Not enough time available to spend with friends and family	.299 [-.267,.712]	.279	.693 [.179,.910]	.012
Paperwork	.063 [-.478,.568]	.824	.104 [-.514,.651]	.747
Eating healthy at work	.329 [-.237,.728]	.232	−.079 [-.637,.532]	.806
Finding time to stay in good physical condition	.299 [-.267,.712]	.279	.027 [-.568,.604]	.933
Fatigue (e.g., shift work, over-time)	.563 [.054,.839]	.029	.496 [-.128,.839]	.101
Occupation-related health issues (e.g., back pain)	−.079 [-.579,.465]	.780	.791 [.380,.941]	.002
Lack of understanding from family and friends about your work	.128 [-.425,.611]	.650	.287 [-.361,.748]	.366
Making friends outside the job	.159 [-.399,.631]	.571	.144 [-.483,.674]	.654
Upholding a "higher image" in public	.720 [.315,.904]	.002	−.242 [-.726,.402]	.449
Negative comments from the public	.770 [.411,.922]	.001	−.052 [-.620,.551]	.872
Limitations to your social life (e.g., who your friends are, where you socialize)	.195 [-.367,.653]	.485	−.221 [-.715,.420]	.490
Feeling like you are always on the job	.236 [-.329,.677]	.397	.368 [-.279,.785]	.239
Friends/family feel the effects of the stigma associated with your job	.367 [-.195,.748]	.178	−.161 [-.683,.470]	.618

Notes.
[a] Police features all RCMP, Municipal, Provincial police captured within the survey. Pearson's *r* = Pearson's *r* adjusted for gender, age, education, ethnicity, marital status, province of residence, and years of service; 95 % CI = 95 % Confidence Interval.

declared rank in each respective PSP organization. The current study has several limitations that can inform future research directions. First, the absolute number of leadership respondents was relatively small, but proportional to the population, with sufficient statistical supports for generalizability and justification for a new research avenue focused on PSP leader mental health. Second, participant self-selection biases may limit generalizability. The current mental health disorder symptoms and measures of suicidality may be inflated by self-selection bias due to motivated responding by participants with clinically significant levels of symptoms (Hunt et al., 2003), however, symptomatic participants may also be less likely to participate in research studies (Statistics Canada, 2016b). Third, screening tools used different symptom duration periods, potentiating response challenges for participants, but the durations were clearly communicated within each instruction set to minimize such risks. Alterations to the response durations would have compromised measure validity. Fourth, the data were collected from September 1, 2016 to January 31, 2017; however, the dataset is the most recent cross-sectional data collected on the mental health of Canadian PSP senior leadership. Substantial shifts may have occurred in the occupational demands and relative stressors experienced by PSP leadership organizations since the onset of the COVID-19 pandemic, underscoring the need for new data collections. Fifth, no Northern Canadian PSP completed the survey, leaving important gaps in our understanding of their experiences. Sixth, intersectional analyses regarding gender among senior leadership and other serving PSP was a priority; however, the small number of women and gender-diverse senior leadership in the current sample precluded such analyses. Future research would benefit

from increased engagement and sampling of PSP senior leadership to explore the sociodemographic intersectional dimensions of occupational stressors, mental health, and suicidality, further justified by the current results.

5. Conclusion

The current results showcase that, despite differences in occupational stressors, responsibility, and scope, PSP senior leadership report similar mental health and suicide-related challenges to that of frontline PSP. The results underscore that PSP senior leadership also need tailored mental health supports, particularly given the administrative stressors that will necessarily compound the impact of their frontline service. The current study indicates the need for more nuanced and contemporary epidemiological assessments of PSP senior leadership mental health, well-being, and stressors.

CRediT authorship contribution statement

R.N. Carleton: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **T.A. Teckchandani:** Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **R.S. MacPhee:** Writing – review & editing, Validation, Methodology, Conceptualization. **R. Camp II:** Writing – review & editing, Validation, Methodology, Conceptualization. **J. Nisbet:** Writing – review & editing, Writing – original draft, Validation, Supervision, Methodology, Investigation, Conceptualization.

Data access

The datasets presented in this article are not readily available because the datasets will be made available only for independent confirmation purposes and only to persons with the necessary ethical and security clearances as defined by the research ethics board at the University of Regina. Requests regarding the datasets can be made to: Nick.Carleton@uregina.ca.

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Declaration of competing interest

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