

Canadian Psychology / Psychologie canadienne

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Online First Publication, November 2, 2023. <https://dx.doi.org/10.1037/cap0000374>

CITATION

Ricciardelli, R., Taillieu, T., Coulling, R., Johnston, M. S., Carleton, R. N., & Afifi, T. (2023, November 2). Provincial Correctional Workers: Examining the Relationships Between Alcohol Use, Mental Health Disorders, and Suicide Behaviour. *Canadian Psychology / Psychologie canadienne*. Advance online publication. <https://dx.doi.org/10.1037/cap0000374>

Provincial Correctional Workers: Examining the Relationships Between Alcohol Use, Mental Health Disorders, and Suicide Behaviour

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Alcohol use among correctional workers remains an understudied phenomenon, although recognized in literature as a coping strategy employed by persons in public safety occupations. Moreover, previous literature denotes a prevalence of mental health disorders higher than that of the general population among correctional workers and public safety personnel. In the present study, we examine the prevalence of alcohol use disorders among correctional workers employed in the provincial correctional service in Ontario, Canada ($n = 915$), to understand the severity of the concern and to explain how alcohol use is associated with diverse mental health concerns. Specifically, we unpack the correlation between problematic alcohol use, mental health disorders, and suicide behaviours among this correctional worker population, finding that the prevalence of mental health disorders and suicide thoughts and behaviours was higher for persons reporting problematic alcohol use. Discussion includes recommendations on research needs tied to unpacking the relationship, including causal relationship between alcohol use and mental health, as a way to combat the devastating realities tied to compromised mental health endured by employees in correctional services.

Public Significance Statement

We found relatively low prevalence of alcohol use disorder among provincial correctional workers, which suggests that perhaps awareness of the impacts of addiction given their work with criminalized people may be affecting alcohol use. However, mental health disorders and suicide behaviours were strongly associated with alcohol use disorders, indicating that improving the mental health and well-being of correctional workers remains an important public health priority. More needs to be done to disambiguate the comorbidity between alcohol use disorder and other mental health disorders among correctional workers.

Keywords: alcohol use, suicide, mental health, correctional workers, Canada

Correctional workers' occupational stress, which arises and cumulates throughout the course of their duties and responsibilities to protect the public, rehabilitate and transition prisoners/parolees/probationers, and preserve the safety of the institutions they serve, can lead to compromised mental health (Carleton et al., 2020; Jessiman-Perreault et al., 2021; Useche et al., 2019). Unsurprising then is that workplace burnout appears to be more prevalent among correctional worker populations than workplace burnout in the general public

(da Silva Venâncio et al., 2020; Useche et al., 2019). Moreover, correctional workers routinely experience exposure to potentially psychologically traumatic events (PPTs), referring to operational stressors unique to the correctional or public safety environment that can be psychologically traumatic (i.e., prisoner violence, threats, self-injury, suicide attempts, and deaths) or events similar to those experienced by the general population (Carleton et al., 2020; Ricciardelli, Mitchell, Taillieu, et al., 2022). Such occupational strains and potentially psychologically traumatic exposures have been found to produce problematic mental health outcomes, including alcohol use disorder and its associated symptoms, coping mechanisms, and behaviours (Konyk et al., 2021; Ricciardelli, McKendy, Jamshidi, et al., 2022; Ricciardelli, Mitchell, Taillieu, et al., 2022).

The present study builds on this body of literature by examining the prevalence of alcohol use disorder among correctional workers employed in provincial correctional services in Ontario, Canada. Specifically, we unpack the associations between problematic alcohol use, mental health disorders, and suicide behaviours among this correctional worker population.

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The authors declare no potential conflicts of interest with respect to the authorship and/or publication of this article.

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Mental Health Disorder Prevalence

Researchers have associated mental health disorder prevalence and burnout with different physical and mental health needs, including distress and PPTTE exposures (Iacovides et al., 2003; Pereira-Lima & Loureiro, 2015; Schonfeld & Bianchi, 2016; Useche et al., 2019), musculoskeletal pain (Ahola et al., 2006; Melamed, 2009; Salvagioni et al., 2017), and sleep problems (Brand et al., 2010; Peterson et al., 2019). In Canada, a mental health disorder prevalence study of correctional workers in Ontario (2017–2018) revealed that 56.4% of correctional workers screened positive for one or more mental health disorders, with 6.8% of the sample screening positive for alcohol use disorder (Konyk et al., 2021). A later study, published in 2020, further revealed that mental health disorder prevalence is rather high among correctional workers employed in Ontario provincial correctional services. Drawing on a sample of 1,487 participants, the researchers found that correctional officers, as well as those working in institutional administration and governance positions and probation/parole officers, were at an elevated risk for mental health disorders, including posttraumatic stress disorder (PTSD), major depressive disorder (MDD), and generalized anxiety disorder (GAD; Carleton et al., 2020).

Evidence indicates people who work in areas of correctional services will experience occupational stress and trauma, some resulting in occupational stress injuries (Hall et al., 2018; Ricciardelli et al., 2023). Burnout in particular has been associated with the prevalence of addictive behaviours like substance misuse, including problematic alcohol consumption and smoking (Campos et al., 2016; Lavigne & Bourbonnais, 2010; Morse et al., 2011). Existing research shows these addictive behaviours emerge among correctional workers at times due to a lack of adequate coping strategies for occupational stress and exhaustion (Chen & Cunradi, 2008; Crawley, 2004; Cunradi et al., 2009; Gould et al., 2013; Lheureux et al., 2016; Maslach & Jackson, 1981).

Problematic Alcohol Use

Correctional work is emotionally demanding, which contributes to high levels of burnout among correctional workers (Bakker et al., 2005; Gould et al., 2013; Xanthopoulou et al., 2007). In their study of 1,039 correctional officers in 14 state correctional facilities across the United States, Shepherd et al. (2019) found an association between emotionally demanding occupational responsibilities and higher burnout levels, especially when exhaustion was present. The authors also found an association between burnout and a higher level of alcohol consumption, and that detachment moderated the indirect effect of emotional demands on drinking frequency through exhaustion. The authors concluded that low levels of recovery from work may represent a significant risk factor for correctional officers developing problematic alcohol consumption to cope and thus should be encouraged to engage in activities outside of work that facilitate recovery from work demands.

Empirical findings linking occupational stress and burnout to alcohol consumption have been documented across several international jurisdictions. In an Australian study of 53 correctional officers, Trounson and Pfeifer (2017) found that officers commonly managed workplace stressors through reliance on substances, particularly alcohol consumption. In a Colombian study characterizing the burnout profiles of 219 correctional officers, Useche et al. (2019)

also found a relationship between higher burnout levels and higher frequencies of alcohol consumption. Consistent with these findings, a cross-sectional study of 339 Brazilian correctional officers demonstrated a high prevalence of riskier alcohol consumption, tied to a significant relationship between alcohol use and the burnout factors of emotional exhaustion and cynicism (Campos et al., 2016).

An earlier Canadian study found that correctional staff working in diverse prison settings were found to drink on average 8.5 alcoholic beverages per week, with 21% drinking at least two beverages daily while 5% consumed a minimum of four drinks a day (Hughes & Zamble, 1993). Further, Kotejshyer et al. (2021) study of correctional officers working in the U.S. Connecticut Department of Corrections found that 17% of correctional officers in their early careers reported smoking tobacco, and 7.5% drank more than seven beverages a week. Surveying thousands of correctional officers employed in California in 2017, Lerman et al. (2022) found that 27.7% of their sample reported having six alcoholic drinks or more on one occasion. Similarly, among Brazilian correctional workers, alcohol dependency or misuse has been found to have a prevalence of 88.3%, with 35.9% reported to have used tobacco and 10.5% cannabis (Lima et al., 2019).

Beyond correctional work, other public safety professions record similar results related to occupational stress and alcohol consumption (Kirschman, 2018). For example, Haddock et al. (2015) presented U.S. national data on alcohol consumption among firefighters and found that alcohol consumption was reported by more than 85% of participants, and excessive drinking was reported by almost half, while episodic heavy drinking was reported by about one third. In a subsequent study of 1,913 female U.S. firefighters, 40% reported binge drinking alcohol within the past month, among which 16.5% screened positive for heavy and problematic drinking (Haddock et al., 2017). Carleton, Afifi, Turner, Taillieu, Duranceau, et al. (2018), in a study of Canadian public safety personnel, reported positive screens for alcohol use disorder among correctional workers (6.8%) were comparable to the prevalence among municipal/provincial police service members (5.8%), which supports other research identifying heightened alcohol consumption levels among police officers (Mumford et al., 2015).

Collectively, these studies indicate a reason for concern and a need for additional research on alcohol consumption among correctional workers, particularly with the recognition of the link between coping needs and substance (mis)use. McCarthy's (2012) study exploring correctional officers' experiences of stress and their coping strategies found an association between occupational tenure and officer coping techniques. Specifically, correctional officers with longer occupational tenure showed a higher rate of alcohol consumption, as well as consumption of other substances (e.g., marijuana, tobacco) and a lower prevalence for seeking professional advice and mental health support (McCarthy, 2012). Other research supports the claim that the harsher correctional workers perceive their working conditions, the more likely they are to have elevated levels of alcohol consumption or other substances (Bierie, 2012), which means more research is needed to identify and teach positive coping mechanisms among correctional workers.

Public Safety Personnel and Suicide

Mental health disorders are associated, to varying extents, with suicide behaviours (Stanley et al., 2016). This is evinced among

correctional workers who were more likely to report lifetime and past-year suicidal behaviours if they screened positive for mental health disorders, and even more so when they screened positive for two or more mental health disorders (Ricciardelli, McKendy, Jamshidi, et al., 2022). In a national Canadian sample of correctional workers, participants showed a lifetime prevalence of 35.2% for suicide ideation, 20.1% for suicide planning, and 8.1% for attempted suicide (Carleton, Afifi, Turner, Taillieu, LeBouthillier, et al., 2018). In the same study, regarding past-year suicide behaviours, 11.0% of correctional workers screened positive for suicide ideation, 4.8% for planning, and 0.4% for attempts.

Alcohol use and misuse are also associated, as an intervening variable, with mental health disorders and suicide behaviours among public safety personnel more broadly. For example, an early study found there is a positive correlation between police officers' use of alcohol and symptoms of depression as well as suicide behaviours (Lester, 1993). Violanti (2004) also describes the relationship between alcohol use, mental health, and suicide for police officers as tied to PPTTE exposures that increase the prevalence of PTSD, which in turn increases the prevalence of alcohol use or misuse and thus increases the risk for suicidal ideations. Correctional workers are more apt to screen positive for mental health disorders and suicide behaviours in comparison to most other public safety personnel (Ricciardelli, McKendy, Jamshidi, et al., 2022). For instance, they appear twice as likely as police officers to die by suicide (Peittaro, 2015).

The Present Study

Undeniably, there is a need for additional research into the relationship between alcohol use, mental health, and suicidal behaviours among correctional workers. To better understand how each construct is related, in the present study, we investigate the prevalence of alcohol use disorders as associated with mental health disorders and suicide behaviours among provincial correctional workers from Ontario, Canada.

Method

Data and Sample

Data from the present study were collected as part of a broader project, the Ontario Provincial Correctional Worker Mental Health and Well-Being Study. From December 2017 to June 2018, we collected cross-sectional data through an online survey from correctional workers working for the provincial correctional system in Ontario. Recruitment consisted of an email inviting all individuals under the employ of Ontario's Ministry of the Solicitor General working in correctional services (approximately 8,000 people) to participate. The email was sent by two representatives, one associated with Ontario's Ministry of the Solicitor General and the other tied to the Ontario Public Services Employees Union. The email invitations informed potential participants of the purpose of the survey and provided an anonymous link routing them to the start of the informed consent page and then the survey. Ethics approval for the study was received from the Research Ethics Boards at both the University of Regina (File No. 2017-098) and the Health Research Ethics Board of Memorial University of Newfoundland (File No. 20201330-EX).

A total of 1,487 respondents began the survey, where 915 respondents (61.5%) proceeded far enough into the survey to

complete the Alcohol Use Disorders Identification Test (AUDIT; Saunders et al., 1993). At the time of the study, this was the only survey of correctional workers' mental health in Canada, moreover, given the listserv distribution, it is not supported that employees outside provincial Ontario correctional services received the link. Moreover, survey results represent all correctional workers—correctional officers, administrative supports, managers, program officers, parole and probation officers, and so forth. No statistically significant differences in sex, age, marital status, education, or total years of service were noted among respondents who completed or did not complete the alcohol use section of the survey required for analyses.

Measures

Alcohol Use

Alcohol use was assessed with the 10-item alcohol use disorder identification test (AUDIT) based on a past 12-month timeframe (Saunders et al., 1993). Total scores on the AUDIT can range from 0 to 40, and a positive screen for alcohol use disorder is indicated by a score >15 (Babor et al., 2001).

Mental Health Disorders

In the present study, we used several validated, self-report screening measures to measure diverse constitutions of symptoms consistent with mental health disorders. Dichotomous coding (i.e., based on established cutoffs) was used to assess the relationship between mental health disorder symptoms and potentially problematic alcohol use. We assessed PTSD symptoms in the past month using the 20-item PTSD Checklist for *DSM-5* (PCL-5; Weathers et al., 2013). Total scores on the PCL-5 can range from 0 to 80, such that a positive screen was found if the correctional worker reported exposure to at least one psychologically traumatic event on the Life Events Checklist for *DSM-5*, met the minimum criteria for each symptom cluster, and had a total score >32 on the PCL-5 (Bovin et al., 2016; Weathers et al., 2013).

We assessed major depressive disorder (MDD) symptoms in the past 14 days using the nine-item Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001). Total scores on the PHQ-9 can range from 0 to 21, where a positive screen is indicated by a total score >9 on the PHQ-9 (Kroenke et al., 2001, 2010). General anxiety disorder (GAD) symptoms in the past 14 days were assessed using the seven-item GAD scale (GAD-7; Spitzer et al., 2006). Total scores on the GAD-7 can range from 0 to 21, and a positive screen is indicated by a total score >9 on the GAD-7 (Kroenke et al., 2010; Swinson, 2006).

We assessed panic disorder symptoms in the past 7 days using the seven-item Panic Disorder Severity Scale—Self Report (PDSS-SR; Houck et al., 2002; Shear et al., 1997). Total scores on the PDSS can range from 0 to 28, and a positive screen is indicated by a total score >9 on the PDSS (Shear et al., 2001).

Suicide Behaviours

Participants were asked to report on lifetime and past-year suicide behaviours including suicide ideation, plans, and attempts. Suicide ideation was assessed with the question "Have you ever contemplated suicide?" (yes or no), and, if a response of yes was indicated, "has this happened in the past 12 months?" (yes or no).

Suicide planning was assessed with the question “Have you ever made a serious plan to attempt suicide” (yes or no) and, if yes, “has this happened in the past 12 months?” (yes or no). Suicide attempts were assessed with the question “Have you ever attempted suicide?” (yes or no) and, if yes, “has this happened in the past 12 months?” (yes or no).

Sociodemographic Variables

Sociodemographic variables included sex (male or female), age (20–29 years, 30–39 years, 40–49 years, or 50 years and older), marital status (married/common-law, single, separated/divorced/widowed, or remarried), education (high school or less, some postsecondary education less than 4-year college/university, or 4-year college or university degree or higher), and total number of years of service (less than 4 years, 4–9 years, 10–15 years, more than 15 years).

Statistical Analyses

First, we computed descriptive statistics to examine the distribution of sociodemographic variables by alcohol use disorder screening status. We then ran logistic regression models to examine differences in problematic alcohol use (i.e., a positive screen for alcohol use disorder) by sociodemographic variables, mental health disorders, and suicide behaviours. Second, logistic regression models were run to examine the relationship between each mental health disorder symptom screen (predictor variables) and problematic alcohol use (outcome variable). Logistic regression models were first run unadjusted and then adjusted for sociodemographic variables. Third, logistic regression models were run to examine the relationship between each lifetime and past-year

suicide behaviours (predictor variables) and problematic alcohol use (outcome variable). Three series of logistic regression models were run: (a) unadjusted, (b) adjusted for sociodemographic variables, and (c) adjusted for sociodemographic covariates and mental health disorders. Complete case analyses were used, and results at $p < .05$ were considered statistically significant. All analyses were completed using Stata software (Version 16.0).

Results

In the sample, the mean AUDIT score was 5.77 ($SE = 0.19$), with 6.7% ($n = 61$) of respondents meeting the criteria for a positive screen for alcohol use disorder (i.e., total AUDIT score > 15). The association of sociodemographic variables and problematic alcohol use is provided in Table 1. As shown, female-identifying participants were less likely to report problematic alcohol use than male-identifying participants (odds ratio [OR] = 0.56, 95% confidence interval, CI [0.33, 0.96]). Correctional workers 50 years and older were also less likely to report problematic alcohol use than correctional workers 20–29 years of age (OR = 0.40, 95% CI [0.17, 0.94]). None of the other sociodemographic variables were associated with problematic alcohol use.

The association between mental health disorder symptoms and problematic alcohol use is provided in Table 2. As shown, all types of mental health disorders assessed were associated with screening positive for problematic alcohol use (ORs ranged from 2.20 to 2.86). After adjustment for sociodemographic variables, only depression and generalized anxiety remained associated with increased odds of problematic alcohol use (AOR = 2.25 and 2.26, respectively).

The association between suicide behaviours and problematic alcohol use is provided in Table 3. As shown, both lifetime and

Table 1
Associations Between Sociodemographic Variables and any Past 12-Month Problematic Alcohol Use

Sociodemographic variable	No problematic alcohol use		Problematic alcohol use		OR	95% CI	LR χ^2 (df)
	%	n	%	n			
Sex							
Male (ref)	91.5	411	8.5	38	1.00		
Female	95.0	441	5.0	23	0.56*	[0.33, 0.96]	4.54 (1)*
Age							
20–29 years (ref)	91.1	154	8.9	15	1.00		
30–39 year	94.3	248	5.7	15	0.62	[0.30, 1.31]	
40–49 year	90.7	215	9.3	22	1.05	[0.53, 2.09]	
50 years and older	96.3	231	3.8	9	0.40*	[0.17, 0.94]	7.82 (3)*
Marital status							
Married/common-law (ref)	93.9	535	6.1	35	1.00		
Single	93.6	161	6.4	11	1.04	[0.52, 2.10]	
Separated/divorced/widowed	91.3	116	8.7	11	1.45	[0.72, 2.94]	
Remarried	90.9	30	9.1	3	1.53	[0.44, 5.26]	1.31 (3)
Education							
High school or less (ref)	93.5	43	6.5	3	1.00		
Some postsecondary	91.5	385	8.6	36	1.34	[0.40, 4.54]	
Completed postsecondary	95.0	402	5.0	21	0.75	[0.21, 2.61]	4.36 (2)
Total number of years on job							
Less than 4 years (ref)	95.1	251	4.9	13	1.00		
4–9 years	90.5	105	9.5	11	2.02	[0.88, 4.66]	
10–15 years	92.4	158	7.6	13	1.59	[0.72, 3.51]	
More than 15 years	93.3	332	6.7	24	1.40	[0.70, 2.80]	26.59 (3)***

Note. ref = reference group in logistic model (with an odds of 1.00); OR = odds ratio; CI = confidence interval; LR = likelihood ratio (χ^2 test); df = degrees of freedom.

* $p < .05$. *** $p < .001$.

Table 2

Association Between any Past 12-Month Problematic Alcohol Use and Comorbid Mental Disorders

Mental disorders	No problematic alcohol use		Problematic alcohol use		OR	95% CI	LR χ^2 (df)	AOR-1	95% CI	LR χ^2 (df)
	%	n	%	n						
PTSD	29.1	237	47.5	28	2.20**	[1.29, 3.75]	8.19 (1)**	1.71	[0.97, 3.03]	35.73 (13)***
Depression	34.4	293	60.0	36	2.86***	[1.68, 4.89]	15.18 (1)***	2.25**	[1.29, 3.94]	41.19 (13)***
Generalized anxiety	29.0	246	52.5	32	2.70***	[1.60, 4.56]	13.58 (1)***	2.26**	[1.30, 3.93]	38.90 (13)***
Panic disorder	12.8	101	25.9	15	2.37**	[1.27, 4.42]	6.53 (1)*	1.89	[0.96, 3.72]	30.65 (13)**

Note. PTSD = posttraumatic stress disorder; OR = odds ratio; AOR-1 = adjusted odds ratio (i.e., adjusted for sociodemographic variables); CI = confidence interval; LR = likelihood ratio (χ^2 test); df = degrees of freedom.

* $p < .05$. ** $p < .01$. *** $p < .001$.

past-year suicide ideation and suicide plans were associated with increased odds of problematic alcohol use (ORs ranged from 2.43 to 3.31) in unadjusted models. After adjustment for sociodemographic variables, lifetime and past-year suicide ideation and lifetime suicide plans remained associated with increased odds of problematic alcohol use (AOR-1 = 3.15, 3.08, and 2.78, respectively). In fully adjusted models (i.e., models adjusting for sociodemographic variables and mental health disorders), only lifetime suicide ideation remained associated with increased odds of problematic alcohol use (AOR-2 = 2.68). Lifetime suicide attempts were not associated with problematic alcohol use in the past 12 months. Due to the low prevalence of past-year suicide attempts in the sample, we were unable to examine the association of past-year suicide attempts with past 12-month alcohol use in this study.

Discussion

The current results highlight the relationship between alcohol use/misuse, mental health, and suicide behaviours among provincial correctional workers in Ontario, Canada. We acknowledge the study is limited because the emails informing potential participants could be forwarded (and the listservs used had an unknown level of overlap); thus, the total number of correctional employees invited to participate or the study response rate cannot be computed. We found male-identifying correctional workers were more likely than female-identifying correctional workers to report problematic alcohol use as well as correctional workers between 20 and 29 years of age in comparison to correctional workers aged 50 years or older. Beyond these findings, we did not find additional statistically significant associations between sociodemographic variables and problematic alcohol use in our correctional worker sample. The association between problematic alcohol use, mental health, and suicide behaviours then, requires contextual rather than sociodemographic information to create a fulsome explanation. Unknown from the current analysis, given it is cross-sectional, is if the problematic alcohol use came prior or post the mental health disorder. Said differently, we cannot state for certain if alcohol use is a precursor or a coping strategy for correctional workers with mental health disorders or suicide behaviours and thoughts.

Necessary is future interview-based qualitative research that, through an in-depth exploration of the life/work experiences and histories of correctional workers, unpacks the motivations or drives for alcohol misuse to understand the relationship between alcohol use and correctional work more generally. Researchers have suggested

that the emotional and security labour involved in correctional work may be responsible (at least in part) for correctional worker experiences of burnout, which may also be tied to alcohol use—particularly when such use becomes problematic (Bakker et al., 2005; Gould et al., 2013; Xanthopoulou et al., 2007). Here, risk factors for burnout included exhaustion and disengagement, two factors that previous researchers have tied to correctional workers’ experiences, given their shift work and high levels of turnover intent or occupational leaving (Shepherd et al., 2019).

Overall, alcohol misuse/overuse was found among 6.7% of our sample, which is lower than expected in comparison to the prevalence reported by other public safety personnel groups in earlier studies (Lerman et al., 2022; Lima et al., 2019). While 6.7% is still a reason for concern in this sample, perhaps the lower prevalence is a function of the very fact that correctional workers see the consequences of addiction among colleagues and the prisoners and parolees/probationers they supervise on a daily basis, which may serve as a protective factor. Additional research here is required to really unpack what correctional workers lay witness to and how these events affect their personal choices and lived experiences, as well as the protective factors that may prevent them from experiencing problematic substance use behaviours. Due to the relatively low prevalence of positive screens for alcohol use disorder in this study, we may have also lacked the power to detect differences based on alcohol screening status (i.e., increased risk of a Type II error). This may be particularly relevant given the relatively large effect size of some of the odds ratios (e.g., ORs > 1.5 or 2.0) that failed to reach statistical significance. In addition, we were also unable to stratify analyses by correctional worker job type, which remains an important avenue for future research.

Nevertheless, among respondents in the sample who screened positive for major depressive disorder, 60% also screened positive for alcohol use disorder. A high prevalence of problematic alcohol use was also noted among those screening positive for general anxiety disorder (52.5%), posttraumatic stress disorder (47.5%), and panic disorder (25.9%). In addition, among respondents with lifetime suicide ideation, 50.8% also screened positive for alcohol use disorder. Again, a high prevalence of problematic alcohol use was noted among those with past-year suicide ideation (18.0%), as well as lifetime and past-year suicide plans (23.0% and 6.6%, respectively). Taking the starting point from previous scholarship, which illustrates how correctional workers have a high prevalence of mental health disorders and suicide behaviours (Ricciardelli, McKendy, Jamshidi, et al., 2022), our research reveals how mental health disorders were

Table 3
Association Between any Past 12-Month Problematic Alcohol Use and Lifetime and Past-Year Suicide Behaviours

Suicide behaviour	No problematic alcohol use		Problematic alcohol use		OR	95% CI	LR χ^2 (df)	AOR-1	95% CI	LR χ^2 (df)	AOR-2	95% CI	LR χ^2 (df)
	%	n	%	n									
Suicide ideation													
Lifetime	24.7	211	50.8	31	3.14***	[1.86, 5.32]	17.65 (1)***	3.15***	[1.80, 5.52]	46.65 (13)***	2.68**	[1.46, 4.94]	48.65 (17)***
Past-year	6.2	53	18.0	11	3.31***	[1.63, 6.73]	9.00 (1)*	3.08**	[1.44, 6.57]	38.17 (13)***	2.21	[0.95, 5.13]	41.89 (17)***
Suicide plan													
Lifetime	10.9	93	23.0	14	2.43**	[1.29, 4.58]	6.57 (1)*	2.78**	[1.39, 5.55]	38.37 (13)***	2.07	[0.96, 4.47]	42.00 (17)***
Past-year	2.2	19	6.6	4	3.08*	[1.01, 9.35]	3.13 (1)	2.74	[0.81, 9.26]	33.13 (13)***	1.82	[0.49, 6.73]	39.51 (17)***
Suicide attempt													
Lifetime	5.2	52	6.6	4	1.29	[0.45, 3.72]	0.21 (1)	1.94	[0.64, 5.89]	32.07 (13)**	1.04	[0.29, 3.78]	38.76 (17)***

Note. Due to low prevalence, we were unable to examine past-year suicide attempts. OR = odds ratio; CI = confidence interval; AOR-1 = adjusted odds ratio 1 (i.e., odds ratios adjusted for sociodemographic variables); AOR-2 = adjusted odds ratio 2 (i.e., odds ratios adjusted for sociodemographic variables and mental health disorders); LR = likelihood ratio (χ^2 test); df = degrees of freedom. * $p < .05$. ** $p < .01$. *** $p < .001$.

associated with higher odds of correctional workers' problematic alcohol use. Genest et al. (2021) also found that some correctional workers experiencing suicide thoughts and behaviours would seek help from their family doctors, a psychologist, or Employee Assistance Program (EAP), but the lack of perceived organizational supports and recognition of the issues by the employers also hindered the treatment and help-seeking process. This is an important consideration for future research, as more studies are needed to unpack the relationships between substance misuse and suicide behaviours, and the other organizational factors (both protective and aggravating) that may be shaping these relationships.

While our research has shown an association between problematic alcohol use, mental health, and suicide behaviours, we do not know the directional dependency or if problematic alcohol use is spurious. Previous research on police suicide ideation suggested that alcohol use and suicide ideation were a result of posttraumatic stress disorder, which was the result of PPTE at work (Violanti, 2004). In this study, lifetime suicide ideation remained associated with increased odds of problematic alcohol use even after adjustment for sociodemographic variables and mental health disorders. We raise the concern that PPTE exposure and occupational stressors more broadly may be tied to an increased risk of alcohol misuse and suicide behaviours.

Further research is necessary to determine the role and causal dependency alcohol use has in the relationship with mental health and suicide. We have posited a hypothesis that extrapolates from other scholarship, particularly research that investigated: (a) whether problematic alcohol use leads to mental health disorders, which are associated with suicide behaviours; (b) whether mental health leads to alcohol use and suicide behaviours; (c) whether mental health and suicide behaviours lead to alcohol use. If alcohol use is shown to be a causal variable, there is also a need to investigate whether this positively or negatively intervenes. An initial assumption may be to consider alcohol negatively intervening, which is to say that alcohol use increases the risk of experiencing a mental health disorder, suicide behaviours, or both. While our research shows that suicide ideation and suicide planning are associated with problematic alcohol use, it is important to acknowledge the relationship is not significant with suicide attempts.

Conclusion

Earlier research has shown the relationship between workplace stressors, PPTEs and mental health, mental health and suicide behaviours, and alcohol use among public safety personnel, including correctional workers. The present study contributes to this body of research that investigates the well-being of correctional workers by examining the associations between problematic alcohol use and mental health and problematic alcohol use and suicide behaviours among correctional workers. More qualitative research unpacking the nuances and complexities of these relationships will shed further insight into these social problems among correctional workers who continue to negotiate mental health challenges on the job more than most other professions. Further, though understudied, some general research exists showing how religion may be a protective factor for problematic alcohol consumption (Campos et al., 2016; de Azevedo Barros et al., 2007; Moreira-Almeida et al., 2006), but research in this field applied to the context of correctional work is still scarce and thus may be an important consideration for future research.

Résumé

La consommation d'alcool chez les travailleurs correctionnels reste un phénomène peu étudié, bien qu'elle soit reconnue dans la littérature comme une stratégie d'adaptation employée par les personnes travaillant dans le domaine de la sécurité publique. En outre, la littérature antérieure fait état d'une prévalence des troubles mentaux supérieure à celle de la population générale chez les travailleurs correctionnels et le personnel de la sécurité publique. Dans la présente étude, nous examinons la prévalence des troubles liés à la consommation d'alcool chez les travailleurs correctionnels du service correctionnel provincial de l'Ontario, au Canada ($n = 915$), afin de comprendre la gravité du problème et d'expliquer comment la consommation d'alcool est associée à divers problèmes de santé mentale. Plus précisément, nous analysons la corrélation entre la consommation problématique d'alcool, les troubles de santé mentale et les comportements suicidaires au sein de cette population d'employés des services correctionnels, en constatant que la prévalence des troubles de santé mentale et des pensées et comportements suicidaires est plus élevée chez les personnes qui déclarent une consommation problématique d'alcool. La discussion comprend des recommandations sur les besoins de recherche liés à l'analyse de la relation, y compris la relation de cause à effet entre la consommation d'alcool et la santé mentale, comme moyen de lutter contre les réalités dévastatrices liées à la mauvaise santé mentale des employés des services correctionnels.

Mots-clés : consommation d'alcool, suicide, santé mentale, travailleurs correctionnels, Canada

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Received January 7, 2023
Revision received July 6, 2023
Accepted July 7, 2023 ■