

Mental Health Knowledge, Stigma, and Service Use Intentions Among Correctional Workers

Robyn E. Shields^{1,3*}, Rosemary Ricciardelli^{1,2}, Laleh Jamshidi^{1,3}, & R. Nicholas Carleton^{1,3}

¹Canadian Institute for Public Safety Research and Treatment (CIPSRT), University of Regina, Regina, SK, Canada;

²Maritime Studies, Fisheries and Marine Institute, Memorial University of Newfoundland, St. John's, NL, Canada.

³Department of Psychology, University of Regina, Regina, SK, Canada

*Correspondence concerning this article should be addressed to Robyn Shields, 3737 Wascana Parkway, Regina, SK, S4S 0A2, Canada. E-mail: robyn.shields@uregina.ca.

Author Note

The authors have no conflicts of interest to report.

©Canadian Psychological Association, [2023]. This paper is not the copy of record and may not exactly replicate the authoritative document published in the CPA journal. The final article is available, upon publication, at: [<https://doi.org/10.1037/cbs0000388>]

Abstract

Correctional workers are regularly exposed to potentially psychologically traumatic events, which are associated with mental health disorders. Correctional workers report barriers to mental health service use due to difficulties recognizing mental health needs and stigma, leading to compromised mental health. The current study was designed to assess nuances in mental health knowledge, stigma, and service use intentions among correctional workers and differences based on demographic categories and histories of mental health disorders. Participants (n = 878) were correctional workers from Ontario, Canada, who completed the Mental Health Knowledge Scale, the Opening Minds Scale for Workplace Attitudes, and the Mental Health Service Use Questionnaire. There were statistically significant differences on measures of mental health knowledge, stigma, and service use intentions across most demographic categories. There were statistically significant differences on a measure of mental health service use intentions between participants with and without a history of mental health disorders. Mental health knowledge contributed significantly to the variation in service use intentions. The current results provide initial baseline data for correctional workers regarding mental health knowledge, stigma, and service use intentions. The results evidence demographic differences that may help focus training efforts. The results also suggest experiencing mental health disorders may be insufficient to overcome mental health stigma, which means additional individual, organizational, and structural efforts are warranted to increase service use intentions among correctional workers as part of supporting better mental health.

Keywords: Correctional workers, mental health knowledge, mental health stigma, mental health service use intentions

Public Significance Statement: Correctional workers have higher rates of mental health disorders than the general public, yet they seek treatment less often than do the general public, likely due to increased rates of stigma. The results of the current study provide a baseline for the mental health knowledge, stigma, and service use intentions of correctional workers. The results of the current study can be used by employers to

identify areas in which changes could be made to decrease stigma, thereby increasing mental health service use.

Mental Health Knowledge, Stigma, and Service Use Intentions Among Correctional Workers

In Ontario, Canada, the Ministry of the Solicitor General (OMSG) is responsible for correctional services and employs approximately 8000 people, working in either 26 provincial correctional institutions (e.g., prisons, jails, correctional centres), 100 probation offices and sub-offices, 19 institutional and court offices, or 164 reporting centers (OMSG, 2022). Correctional work involves diverse professional roles with different workplace environments, workloads, job demands, and shift schedules (i.e., day, afternoon, or night shift; OMSG, 2020). Institutional roles involve direct (e.g., correctional officers, nursing staff, program officers) and indirect contact with prisoners (e.g., administrative staff, maintenance workers; OMSG, 2020). Community roles involve direct contact with clients outside of prison environments (e.g., probation and parole officers; OMSG, 2020).

Correctional workers are exposed to occupational stressors, including organizational (e.g., shift work, administrative responsibilities) and operational stressors (e.g., shift work, public scrutiny) associated with mental health disorders (Carleton, Afifi, et al., 2020; Konyk et al., 2021; Norman & Ricciardelli, 2022). Potentially psychologically traumatic events (PPTe) are particularly common operational stressors for correctional workers (Andersen et al., 2019; Carleton et al., 2019; Spinaris et al., 2013). PPTe include stressful events that involve actual or threatened death, serious injury, or sexual (Canadian Institute for Public Safety Research and Treatment, 2020). Correctional workers report frequent PPTe exposures shared by other public safety personnel (e.g., sudden violent death, physical assault; Carleton et al., 2019; Ricciardelli et al., 2022) and unique to correctional work (e.g., prison riot control; [masked for review]). Correctional work often involves staying in the same environment as, and providing care for, individuals associated with PPTe (Ricciardelli, 2019; Ricciardelli & Power, 2020) which can elevate perceptions of threat such that workers may interpret a wide array of events (e.g., unpredictable behaviours) as PPTe (Andersen et al., 2019; Ricciardelli, Czarnuch, et al., 2020).

There is substantial evidence of associations between PPTe and various mental health disorders (American Psychological Association [APA], 2013). Many Ontario correctional workers screen positive for at least one mood (39.4%) or anxiety (35.5%) disorder, such that most (58.2%) screen positive for at least one mental health disorder (Carleton, Ricciardelli, et al., 2020). The positive screening proportions from Ontario appear higher than other Canadian correctional workers (Carleton et al., 2018), and much higher than diagnostic rates for the general population (Statistics Canada, 2012). There are also differences in mental disorder screening proportions across correctional roles and workplace environments; for example, correctional officers (59.0%) and probation officers (63.2%) appear to screen positive for one or more mental disorder(s) more frequently than nurses working in institutional settings (43.7%; Carleton, Ricciardelli, et al., 2020). Despite such high prevalence of mental health disorders across correctional roles, willingness to use mental health services among correctional workers appears low (Ricciardelli, Haynes, et al., 2021).

Characteristics of correctional work, such as hyper-masculine gender norms (Cheng et al., 2018; Ricciardelli, Haynes, et al., 2021) and paramilitary occupational structures (Ricciardelli, Carleton, Mooney, et al., 2020), have historically been associated with decreased willingness to use mental health services. A recent study identified several barriers (e.g., inadequate benefits to cover psychological treatment, staffing shortages to cover time off for mental health service use, forced overtime and casual shift work interfering with the ability to book appointments) to mental health service use among Canadian correctional workers (Ricciardelli, Carleton, Gacek, et al., 2020). The results highlighted two particularly problematic barriers to mental health service use: 1) a lack of recognition of mental health needs (i.e., lack of mental health knowledge) and; 2) the stigma associated with mental health service use (Ricciardelli, Carleton, Gacek, et al., 2020). A better understanding of the levels of mental health knowledge and stigma in correctional workers and differences across sociodemographic characteristics could identify areas in which steps could be taken to help break down barriers to service use, and thus mitigate mental health symptoms.

Mental Health Knowledge Among Correctional Workers

Mental health knowledge is often focused on understanding, recognizing, managing, and treating mental health disorders (Furnham & Swami, 2018). Mental health knowledge remains associated with increased recognition of mental health disorders and decreased levels of stigma, which can increase willingness to use mental health services (Furnham & Swami, 2018). Evidence-informed psychoeducation is a common tool used to increase mental health knowledge (Hadlaczky et al., 2014) that appears, at least historically, under-utilized in the training provided to correctional workers (DeHart & Iachini, 2019).

Correctional workers have underscored their need for increased mental health knowledge, but have also reported barriers (e.g., dedicated time, difficulties identifying appropriate providers) to accessing reliable training (DeHart & Iachini, 2019). Correctional workers have also described their own mental health disorders as insufficiently recognized by themselves, colleagues, and their employers (Ricciardelli, Carleton, Gacek, et al., 2020; Ricciardelli, Siqueira Cassiano, et al., 2021; Siqueira Cassiano et al., 2022).

Stigma Towards Mental Health Disorders

Stigma is driven by perceptions about people based on individualized attributes, known or possibly to be discovered (Goffman, 1961, 1963). Stigma toward mental health disorders is prevalent in the field of correctional work (Clement et al., 2015; Jessiman-Perreault et al., 2021; Ricciardelli & Adorjan, 2021).

Stigma is compounded by self-stigma, referring to the internalization of stigma (Cheng et al., 2018).

Available research suggests in the general public self-stigma regarding mental health may have a larger impact on willingness to use mental health services than perceptions of stigma from others (Schnyder et al., 2017). However, correctional workers have reported a culture of “toughness” (Burdett et al., 2018; Jessiman-Perreault et al., 2021; Ricciardelli, Carleton, Gacek, et al., 2020), often due to their occupational roles and responsibilities, which can lead to fears of appearing weak if their mental health status becomes known or they seek help. Demonstrations of bravery and stoicism appear highly valued in correctional

environments (Burdett et al., 2018; Jessiman-Perreault et al., 2021); however, valuing such traits may be contributing to ongoing stigma towards mental health disorders (Clement et al., 2015).

Current Study

There appears to be evidence of important relationships between accessing formal mental health services, mental health knowledge, and mental health stigma in the general public (Hadlaczky et al., 2014; Schnyder et al., 2017; Xu et al., 2018) and within other PSP sectors (Krakauer et al., 2020). Understanding the current state of mental health knowledge and perceptions of stigma among correctional workers, including nuances that may be present across sociodemographic characteristics (e.g., professional role category, sex, educational level), may help to inform training designed to reduce barriers to mental health service use. The current study was designed to assess the current level of mental health knowledge, stigma, and service use intentions in provincial correctional workers in Ontario, including differences across sociodemographic and mental health history, along with the relationships that may exist between these constructs (i.e., mental health knowledge, stigma, and service use intentions). Extant literature suggests that female PSP report higher mental health knowledge and service use intentions, along with lower levels of stigma (Krakauer et al., 2020; Ricciardelli, Haynes, et al., 2021). As such, female correctional workers in the current study were expected to report higher mental health knowledge and service use intentions, along with lower levels of stigma. Differences in training across professional role categories is associated with differences in levels of mental health knowledge (Ricciardelli, Haynes, et al., 2021); therefore, levels of mental health knowledge, stigma, and service use intentions were expected to differ across professional role categories. Personal experience with a mental health disorder has been associated with increased mental health knowledge and service use intentions, and decreased levels of stigma (Miles et al., 2020). Accordingly, participants who screened positively for one or more mental health disorder(s) were expected to report higher levels of mental health knowledge and service use intentions, and lower levels of stigma. Evidence exists in the literature that suggests a relationship between mental health knowledge, stigma,

and intent to use services (e.g., Krakauer et al., 2020); thus, we expected that mental health knowledge and stigma significantly contributed to the variance in intent to use services among correctional workers.

Methods

Data and Sample

Data were collected through an online, self-report survey, via Qualtrics, between December 8, 2017 and June 30, 2018. The study was approved by the Research Ethics Boards at both the [masked for review] and [masked for review]. All members of the Ontario Public Service Employees Union and correctional workers employed by the OMSG were invited to participate through their organizational email listservs. The email invitation explained the purpose of the study and clarified that participation was anonymous and voluntary. The listservs have an unknown level of overlap and emails could be forwarded, which means the true sampling frame was unknowable.

Participants provided informed consent electronically as part of the online survey. Randomly generated unique access codes were created that allowed participants to leave and return to the survey without losing progress. The survey completion time ranged from 25-40 minutes, which was influenced by response skip logic.

A total of $n = 1487$ correctional workers responded to at least some the survey; however, only $n = 878$ responded to at least one of the mental health knowledge, stigma, and service use intentions questionnaires and were therefore included in the analyses. Participants were grouped into one of the following six professional role categories: institutional wellness (e.g., nurses, psychologists, social workers), institutional governance (e.g., superintendents, deputy superintendents), institutional correctional officers, probation/parole officers, institutional administration (e.g., payroll, administrative assistants), and institutional training (e.g., including chaplain, volunteer coordinators, program officers).

Measures

Mental Health Status – Positive or Negative Screening for Mental Disorders

Participants were considered to have screened positive for one or more mental health disorder(s) based on either self-reported symptoms that met criteria or participants specifically reporting having actually been diagnosed by a mental health care professional. Responses to the questions with positive screens on various inventories assessing symptoms of mental health disorders (i.e., posttraumatic stress disorder [PTSD], generalised anxiety disorder [GAD], major depressive disorder (MDD), panic disorder [PD], alcohol use disorder [AUD], persistent depressive disorder, bipolar I/II, cyclothymic) were combined to generate a provisional “Any Positive Screen” variable.

Mental Health Knowledge, Stigma, and Service Use Intentions

Mental Health Knowledge Scale (MAKS). The MAKS (Evans-Lacko et al., 2010) is a 15-item self-report questionnaire designed to measure mental health knowledge and stigma. Only the first six items, measuring general mental health knowledge (e.g., “Most people with mental health problems want to have paid employment”) were used (i.e., MAKS-6) in the current study. Items are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicate greater levels of mental health knowledge. The MAKS is a relatively new measure, but the available psychometric data support the internal consistency and test-retest reliability of the measure (Evans-Lacko et al., 2010).

Opening Minds Scale – Workplace Attitudes (OMS-WA). The OMS-WA (Szeto et al., 2013) is a 27-item self-report questionnaire designed to measure general attitudes towards mental health disorders in the workplace. There are three subscales: 1) attitudes toward people with a mental health disorder (i.e., “Attitudes”; 11 items); 2) behavioural intentions with people with mental health disorders (i.e., “Behaviours”; 11 items); and 3) beliefs about mental health disorders in the workplace (i.e., “Beliefs”; 5 items). The current study focused specifically on attitudes related to stigma; as such, only items from the OMS-WA Attitudes subscale were included. Items such as “I would try to avoid a co-worker with a mental illness” are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Items are added for a total sub-scale score, with higher scores indicate higher levels of stigmatizing. The OMS-WA is a

relatively new measure, but the available psychometric data support the internal consistency of the measure and each of the three subscales (Szeto et al., 2013).

Mental Health Service Use Questionnaire (MHSUQ). The MHSUQ (Lee et al., 2016) is a 4-item self-report questionnaire designed to measure mental health service use intentions. Items such as “If I developed mental health problems, I would expect to seek mental health treatment from a professional” are rated on a 7-point Likert scale ranging from 1 (strongly agree) to 7 (strongly disagree). Higher scores indicate greater service use intentions.

Statistical Analyses

All analyses were conducted using SPSS Version 28 software (IBM Corp, 2017). The percentage of missing values across mental health knowledge, stigma, and service use scores and their sub-items varied between 0.2% to 1.1%. According to Little’s Missing Completely at Random (MCAR) test, data were found to be missing at random, $\chi^2(101) = 75.27, p = .974$. Thus, missing data were treated as missing and not corrected for. First, sociodemographic characteristics were described using frequencies and percentages. The average and standard deviations of mental health knowledge, stigma, and service use scores were calculated across several sociodemographic groups. Second, a series of one-way analyses of variances (ANOVAs) were performed to check differences in mean mental health knowledge, stigma, and service use scores across professional role categories. Third, statistically significant differences between professional role categories were investigated through post-hoc analyses using Tukey’s HSD. Familywise error rates in multiple comparisons were addressed with Holm-Bonferroni adjustments. Fourth, independent samples t-tests were conducted to compare mean mental health knowledge, stigma, and service use scores between participants with and without positive screens for one or more mental disorders. Next, zero-order correlations were conducted between mental health knowledge, stigma, and service use scores to assess the variable interrelationships. Next, a two stage hierarchical multiple regression was performed with mental health service use intentions as the dependent variable. Mental health knowledge was entered

at stage one as the predictor. The sex, age, occupational categories, and language first spoken were entered as predictors at stage two to assess their contribution to the variability in mental health service use intentions. Finally, a four stage hierarchical multiple regression was performed with mental health service use intentions as the dependent variable. Mental health knowledge was entered at stage one as the predictor. OMS-WA Attitudes was included at stage two as the predictor. Mental health status (positive or negative screening for mental disorders) was entered at stage three as the predictor. The sex, age, occupational categories, and language first spoken were entered as predictors at stage four to assess how they can explain the variability in mental health service use intentions.

Results

Demographic and positive screens of the overall sample are displayed in Table 1. An almost equal proportion of male (48.3%) and female (51.4%) correctional workers responded. Respondents were primarily over 30 years old (>80%), English speaking (87.5%), and married or in a common-law relationship (63%). Most participants were correctional officers (57.1%) or probation/parole officers (15.3%), with over 15 years of service (39.0%). Approximately half (51.4%) of the sample screened positive for one or more mental disorder(s). Mental health knowledge and stigma were inversely statistically significantly correlated ($r = -0.340$, $p < 0.01$). Mental health knowledge and service use intentions were statistically significantly positively correlated, but the relationship was relatively small ($r = 0.145$, $p < 0.01$).

Mental Health Knowledge

The MAKS-6 scores among different sociodemographic categories and associated significant differences are presented in Table 1. Statistically significant differences were observed in mental health knowledge scores across sex, $t(871) = -5.83$, $p < .001$, Cohen's $d = 0.394$, age groups, $F(4, 864) = 3.15$, $p \leq .05$, $\eta_p^2 = 0.014$, professional role categories, $F(5, 830) = 20.19$, $p \leq .001$, $\eta_p^2 = 0.108$, marital status, $F(3, 859) = 4.32$, $p \leq .05$, $\eta_p^2 = 0.015$, education, $F(2, 848) = 18.64$, $p \leq .001$, $\eta_p^2 = 0.014$, and years of service,

$F(3, 853) = 4.87, p \leq .01, \eta_p^2 = 0.014$; with small to medium effect sizes. After application of a Holm-Bonferroni adjustment, multiple pairwise comparisons were not significant. Female participants reported statistically significantly higher average mental health knowledge scores ($M = 23.97, SD = 3.14$) than males ($M = 22.72, SD = 3.20$). Institutional wellness ($M = 25.28, SD = 3.09$) and probation/parole officers ($M = 24.99, SD = 2.83$) reported significantly higher average mental health knowledge scores than other professional roles, except for institutional training ($M = 24.10, SD = 2.65$). Single participants reported significantly lower average mental health knowledge scores ($M = 22.55, SD = 3.21$) than married or common-law participants ($M = 23.55, SD = 3.20$). Participants with a university degree reported statistically significantly higher average mental health knowledge scores ($M = 24.01, SD = 3.28$) than other education categories.

Table 2 presents descriptive statistics results for the MAKS-6, as well as comparisons by professional role category. There were statistically significant differences were observed for all items and total score. The highest effect size was found for the question "If a friend had a mental health problem, I would know what advice to give them to get professional help," $F(5, 830) = 18.53, p \leq .001$ and $\eta_p^2 = 0.100$. After application of a Holm-Bonferroni adjustment, multiple pairwise comparisons were not significant. The post-hoc analyses indicated that institutional correctional officers reported statistically significantly lower mean scores than institutional wellness and probation/parole officers for most of the items and total score.

Mental Health Stigma

The OMS-WA Attitudes subscale total scores among different sociodemographic categories and associated significant differences are presented in Table 1. There were statistically significant differences across sex, $t(864) = 5.70, p \leq .001$, Cohen's $d = 0.388$, professional role category, $F(5, 822) = 7.67, p \leq .001, \eta_p^2 = 0.045$, marital status, $F(3, 852) = 3.60, p \leq .05, \eta_p^2 = 0.013$, and education level, $F(2, 841) = 10.19, p \leq .001, \eta_p^2 = 0.024$, with small to medium effect sizes. Male participants ($M = 22.27, SD = 8.20$)

reported significantly higher average stigma scores than female participants ($M = 19.20$, $SD = 7.63$, $p < .001$). The highest stigma scores were identified for institutional correctional officers ($M = 22.16$, $SD = 8.48$) and the lowest stigma scores were observed for institutional training ($M = 17.66$, $SD = 6.39$). Single participants reported significantly higher average stigma scores ($M = 22.68$, $SD = 9.83$) than married/common-law participants ($M = 20.35$, $SD = 7.57$). Participants with a university degree reported significantly lower average stigma scores ($M = 19.59$, $SD = 8.16$) than other educational categories.

Table 3 presents descriptive statistics results for the OMS-WA Attitudes subscale, as well as comparisons by professional role category. There were statistically significant differences observed for all items and total score except, "If I knew a co-worker who had a mental illness, I would not date them," $F(5, 824) = 1.72$, $p > .05$ and $\eta_p^2 = 0.010$. The highest effect size was observed in the question, "Employees with a mental illness are often more dangerous than the average employee," $F(5, 826) = 10.23$, $p \leq .001$ and $\eta_p^2 = 0.057$. However, follow-up multiple pairwise comparisons were not significant for some of these tests due to application of the Holm-Bonferroni adjustment to control Type I error from post-hoc test. The post-hoc analyses indicated that institutional correctional officers reported statistically significantly higher mean scores than institutional wellness and probation/parole officers in questions "I would not want to be supervised by someone who had been treated for a mental illness," "Employees with a mental illness are often more dangerous than the average employee," "Employees with a mental illness often become violent if not treated," "You can never know what an employee with a mental illness is going to do," and total score. Institutional correctional officers also reported statistically significantly higher mean scores than probation/parole officers in questions "I would not want to work with a co-worker who had been treated for a mental illness," and "Employees with serious mental illnesses need to be locked away."

Mental Health Service Use Intentions

The MHSUQ scores among different sociodemographic categories and associated significant differences are presented in Table 1. There were statistically significant differences across all sociodemographic categories, except education level, $F(2, 845) = 0.78, p > .05, \eta_p^2 = 0.002$; with small to medium effect sizes. However, follow-up multiple pairwise comparisons were not significant for professional role categories due to application of the Holm-Bonferroni adjustment to control Type I error from post-hoc test. Female participants reported statistically significantly higher average MHSUQ scores ($M = 23.62, SD = 5.92$) than males ($M = 22.08, SD = 6.60$). Participants 18 to 29 years of age ($M = 21.04, SD = 6.65$) reported statistically significantly lower MHSUQ scores than other groups, except for participants 30 to 39 years of age ($M = 22.77, SD = 6.42$) and participants 40 to 49 years of age ($M = 22.86, SD = 6.17$). In analyzing marital status, single participants reported significantly lower average service use scores ($M = 21.17, SD = 6.91$) than separated or divorced participants ($M = 23.21, SD = 5.98$). Participants who reported their first language was neither English nor French reported statistically significantly higher average MHSUQ scores ($M = 24.75, SD = 5.3$). Participants with fewer than 4 years of service reported statistically significantly lower average MHSUQ scores ($M = 21.56, SD = 6.73$) than participants with more than 16 years of service ($M = 23.39, SD = 6.05$).

Table 4 presents descriptive statistics results for the MHSUQ, as well as comparisons by professional role category. Responses to the MHSUQ items overall, as well as comparisons by professional role categories, are presented in Table 4. All items and total score differed statistically significantly across professional role categories. The highest effect size was observed for question "If I developed mental health problems, I would expect to seek mental health treatment from a professional," $F(5, 829) = 3.42, p \leq .01$ and $\eta_p^2 = 0.020$. However, follow-up multiple pairwise comparisons were not significant for some of these tests due to application of the Holm-Bonferroni adjustment to control Type I error from post-hoc test. Institutional correctional officers reported statistically significantly lower mean

scores than probation/parole officers for the item “If I developed mental health problems, I would expect to seek mental health treatment from a professional” and lower scores than institutional training for the item “If I developed mental health problems, I would intend to seek mental health treatment from a professional.”

Knowledge, Stigma, and Service Use Intentions: Comparisons Between Participants With and Without Positive Screens

There were no statistically significant differences between participants with and without positive screens on either the total scores for the MAKS-6, $t(802) = -1.03$, Cohen's $d = .073$, or the OMS-WA Attitudes subscale, $t(797) = -0.02$, Cohen's $d = .001$. There were also no statistically significant differences between disorder groupings for any of the individual items on the MAKS-6 (all $ps > .10$, $ds < .097$) or the OMS-WA Attitudes subscale (all $ps > .10$, $ds < .064$). In contrast, participants who screened positive for one or more mental disorder(s) reported statistically significantly higher MHSUQ scores (see Table 5; all $ps < .05$, $ds \geq .174$).

The hierarchical multiple regression revealed that at stage one mental health knowledge contributed significantly to the regression model, $F(1,751) = 14.34$, $p < .001$, and accounted for 1.9% of the variation in mental health service use intentions. Inclusion of the OMS-WA attitudes at stage two did not contribute to the regression model. Mental health status (positive or negative screening for mental disorders) was entered at stage three and accounted for an additional 1.3% of the variation in mental health service use intentions with statistically significant R^2 , $F(3,749) = 8.38$, $p < .001$. Adding participants' sex, age, occupational categories, and language first spoken to the regression model explained an additional 4.7% of the variation in mental health service use intentions and this change in R^2 was statistically significant, $F(15,737) = 4.27$, $p < .001$. Together the seven independent variables (i.e., mental health knowledge, stigma, mental health status, sex, age, occupational categories, and language first spoken) accounted for 8.0% of the variance in mental health service use intentions.

Female participants reported statistically significantly higher scores on mental health service use intentions compared to male participants, $b = 1.09$, $p < .001$. Older participants from different age groups reported statistically significantly higher scores on mental health service use intentions compared to younger participants (i.e., 18 to 29 years old), $bs = 1.68$ to 4.25 , all $ps < .05$. Participants with French as first spoken language reported statistically significantly lower mental health service use intentions compared to participants with English as their first language, $b = -3.09$, $p < .05$. Participants with first spoken language other than English and French reported statistically significantly higher mental health service use intentions compared to participants with English as their first language, $b = 2.05$, $p < .01$.

Discussion

The current study was designed to examine levels of mental health knowledge, stigma, and service use intentions among diverse correctional workers, including differences between sociodemographic characteristics and participants who did and did not screen positively for one or more mental health disorders. Correctional workers in the current study reported greater stigma towards mental health disorders and less intention to use mental health services than a nationally representative sample from across Canada (Krakauer et al., 2020). In general, participants reporting more mental health knowledge also reported lower levels of stigma and higher levels of intent to seek mental health services.

Overall, results indicated that the included variables (i.e., mental health knowledge, stigma, mental health status, age, sex, professional role category, and first language spoken) accounted for only 8% of the variance in intent to use mental health services in correctional workers. Mental health knowledge accounted for a significant, but low portion (i.e., 1.9%) of the variability in service use intentions. The results are consistent with research evidencing that more mental health knowledge correlates with higher levels of intent to use mental health services among PSP (Krakauer et al., 2020). Knowledge of how to access mental health services has been associated with an increase in the intent to seek services (Henderson et al., 2013). The current study did not assess mental health knowledge related to access to services, which

may have accounted for more variance in correctional workers intent to seek services. Interestingly, although mental health knowledge and stigma were inversely correlated in our sample, self-reported levels of stigma did not contribute significantly to the variance in intent to use mental health services. Only one subscale (i.e., attitudes toward people with a mental health disorder) of the OMS-WA was collected in this particular sample, which may have contributed to this unexpected finding. Inclusion of the other subscales (i.e., behavioural intentions with people with mental health disorders, and beliefs about mental health challenges in the workplace) may provide a more clear picture of the overall levels of stigma in correctional workers and the contribution of stigma to the variance in intent to use mental health services in this population. Research to examine the other variables affecting correctional workers' intent to seek mental health services is necessary to ensure the mental-wellbeing of correctional workers across Canada.

Consistent with extant literature (Krakauer et al., 2020; Ricciardelli, Haynes, et al., 2021), the current results supported the hypothesis that female correctional workers would report higher levels of mental health knowledge and service use intentions, along with lower levels of stigma. Higher levels of mental health knowledge have been associated with lower levels of stigma and greater intention to access mental health services (Furnham & Swami, 2018). One factor potentially impacting our results may be gender socialization because females, more so than males, are socialized to express emotions and seek support when distressed, which may develop mental health knowledge (Mankus et al., 2016). Conversely, males, arguably, are often socialized to adhere to norms culturally perceived as masculine, such as being stoic, in control, competent, and able to manage stress without asking for help (Addis & Hoffman, 2017). Correctional work continues to be a hyper masculine space (Ricciardelli, 2015, 2019) where strong adherence to dominant masculine beliefs is associated with increased levels of stigma (Bradbury, 2020; Vogel et al., 2011) and lower intention to seek mental health services (Addis & Hoffman, 2017; Vogel et al., 2011). The culture of correctional work first trains for and then demands a stoic persona which likely

compounds the effects of stigmatizing attitudes among male correctional workers (Burdett et al., 2018; Corsianos, 2011; Jessiman-Perreault et al., 2021; Ricciardelli, 2015).

Mental health disorders among Ontario correctional workers (58.2%; Carleton, Ricciardelli, et al., 2020) and provincial prisoners (33%; Office of the Auditor General of Canada, 2019) are more prevalent than for the general population (10.1%; Statistics Canada, 2012); accordingly, correctional workers may experience more exposure to mental health disorders than the general population and therein involuntarily accrued mental health knowledge. The professional role categories with more exposure to prisoners and working alongside other correctional workers were expected to report greater mental health knowledge. The current results supported the hypothesis that levels of mental health knowledge, stigma, and service use intentions would differ across professional role categories. Correctional workers in institutional wellness—those who medically manage prisoner mental health—reported the highest levels of mental health knowledge, with probation/parole officers, institutional training, institutional governance, correctional officers, and institutional administration following respectively. Institutional wellness employees are often trained in mental health during their education; in contrast, mental health training for provincial Ontario correctional officers is limited (Office of the Auditor General of Canada, 2019). The pervasive reports of problematic stigma among correctional officers appears consistent with prior research where an inverse correlation between mental health knowledge and stigma in PSP (Krakauer et al., 2020). In any case, correctional officers work hand in hand with prisoners, many with mental health needs that appear yet unmet, and strive to save lives (Ricciardelli, Carleton, Gacek, et al., 2020; Ricciardelli, Carleton, Mooney, et al., 2020). Correctional officers may seek to distance themselves personally from mental health disorders because of their own first-hand experiences with mental health, which negatively impact their help-seeking and – a supposition supported by evidence from police who avoid using services in spaces where they bring civilians for mental health support (Newell et al., 2022). Thus, the distancing from mental health may

be impacting stigma and service seeking as well as skewing negatively perception of mental health and related knowledge.

The current results did not support the hypothesis that participants who screened positively for one or more mental health disorders would reported higher levels of mental health knowledge and service use intentions and lower levels of stigma. Instead, participants who screened positively for one or more mental health disorders did not report higher levels of mental health knowledge and service use intentions, and lower levels of mental health stigma. There were no significant differences in mental health knowledge between participants with and without a positive screen. The relationship between mental health disorders and mental health knowledge is currently inconclusive. For example, a study of college students evidenced an inverse relationship between mental health disorders and mental health knowledge (Kim et al., 2015), whereas another study of college students evidenced a positive relationship between mental health disorders and mental health knowledge (Miles et al., 2020). There are no published results regarding the relationship between mental health disorders and mental health knowledge among correctional workers.

There were also no significant differences between reported levels of stigma for participants with and without a positive screen. Correctional workers with a positive screen reported lower intentions to seek mental health services than those without a positive screen. Participants with previous mental health disorders may have had poor experiences with mental health service providers that increased stigma and reduced subsequent help-seeking behaviours. Research regarding impacts of previous help-seeking remains inconclusive (Kim et al., 2015; Miles et al., 2020; Vogel & Wei, 2005). For example, a study of students evidenced an inverse relationship between distress (i.e., symptoms of depression or anxiety in the past 30 days) and help-seeking (Kim et al., 2015); whereas another study evidenced a positive relationship between distress and help-seeking (Miles et al., 2020; Vogel & Wei, 2005).

Limitations and Future Research

There are limitations within the current study that provide directions for future research. The survey was sent out via list serves and participants self-selected to respond; therefore, the results may not be generalizable to all provincial correctional workers. Self-report questionnaires are not as reliable or valid as compared to clinician administered assessments. Participants may underreport symptoms, even through anonymous surveys, due to concerns with the stigma that is prevalent throughout correctional work (Ricciardelli & Adorjan, 2021).

There is limited research on the relationship between mental health knowledge, stigma, and service use intentions in correctional workers. More research that unpacks the complex relationship between mental health and service use intentions is required (see Ricciardelli, Haynes, et al., 2021; Siqueira Cassiano et al., 2022), including a broader capture of self-reported levels of stigma in this population. Further, there appears to be a relationship between reported mental health symptoms and service use intentions, but the results are conflicting—thus again, more research in the area is warranted.

Conclusions

The current study was designed to examine differences in levels of mental health knowledge, stigma, and service use intentions among different provincial correctional work categories in Ontario, Canada, as well as to assess the association between levels of mental health knowledge, stigma, and service use intention among correctional workers with and without a positive screen for mental health disorder. Female correctional workers, participants 30 years and older, participants with a university degree, and participants with 10 to 15 years of service reported higher levels of mental health knowledge and service use intentions. Male correctional workers, participants 18 to 29 years old, participants separated or divorced, and participants with high school or less education reported higher levels of stigma towards mental health disorders. No significant differences on mental health knowledge and stigma were found between participants with and without a positive screen for one or more mental health disorders. Participants who

did not screen positively for one or more mental health disorders reported a higher level of service use intention than those who screened positively.

Overall, the current results clarify relationships between mental health knowledge, stigma, and mental health help-seeking intentions among different categories of correctional workers in Ontario. However, variables included in the regression analysis (i.e., mental health knowledge, stigma, mental health status, age, sex, professional role category, and first language spoken) accounted for only a small proportion of the variance in intent to use mental health services in correctional workers, suggesting that there are other variables that influence a correctional worker's intent to seek services. Mental health knowledge appears to significantly contribute to the intent to use services. The results may help inform interventions (e.g., mental health awareness and training in the workplace) to improve mental health knowledge, lessen stigma, and increase mental health help-seeking. Accordingly, we recommend correctional service organizations consider working with professional mental health scientist practitioners to further investigate variables that may influence the intent to seek services, and design and deploy psychoeducation specific to the needs of correctional workers and their employers.

References

- Addis, M. E., & Hoffman, E. (2017). Men's depression and help-seeking through the lenses of gender. In R. F. Levant & Y. J. Wong (Eds.), *The psychology of men and masculinities*. (pp. 171–196). American Psychological Association. <https://doi.org/10.1037/000023-007>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Author. <https://doi.org/10.1176/appi.books.9780890425596>
- Andersen, L. P., Hogh, A., Elklit, A., Andersen, J. H., & Biering, K. (2019). Work-related threats and violence and post-traumatic symptoms in four high-risk occupations: Short- and long-term symptoms. *International Archives of Occupational and Environmental Health*, 92(2), 195–208. <https://doi.org/10.1007/s00420-018-1369-5>
- Bradbury, A. (2020). Mental health stigma: The impact of age and gender on attitudes. *Community Mental Health Journal*, 56(5), 933–938. <https://doi.org/10.1007/s10597-020-00559-x>
- Burdett, F., Gouliquer, L., & Poulin, C. (2018). Culture of corrections: The experiences of women correctional officers. *Feminist Criminology*, 13(3), 329–349. <https://doi.org/10.1177/1557085118767974>
- Canadian Institute for Public Safety Research and Treatment. (2020, February 23). Glossary of Terms Version 2.1. <https://www.cipsrt-icrtsp.ca/en/resources/glossary-of-terms>
- Carleton, R. N., Afifi, T. O., Taillieu, T., Turner, S., Krakauer, R., Anderson, G. S., MacPhee, R. S., Ricciardelli, R., Cramm, H. A., Groll, D., & McCreary, D. R. (2019). Exposures to potentially traumatic events among public safety personnel in Canada. *Canadian Journal of Behavioural Science*, 51(1), 37–52. <https://doi.org/10.1037/cbs0000115>
- Carleton, R. N., Afifi, T. O., Taillieu, T., Turner, S., Mason, J. E., Ricciardelli, R., McCreary, D. R., Vaughan, A. D., Anderson, G. S., Krakauer, R. L., Donnelly, E. A., Camp, R. D., Groll, D., Cramm, H. A., MacPhee, R. S., & Griffiths, C. T. (2020). Assessing the relative impact of diverse stressors among public safety personnel. *International Journal of Environmental Research and Public Health*, 17(4), Article 1234. <https://doi.org/10.3390/ijerph17041234>
- Carleton, R. N., Afifi, T. O., Turner, S., Taillieu, T., Duranceau, S., LeBouthillier, D. M., Sareen, J., Ricciardelli, R., MacPhee, R. S., Groll, D., Hozempa, K., Brunet, A., Weekes, J. R., Griffiths, C. T., Abrams, K. J., Jones, N. A., Beshai, S., Cramm, H. A., Dobson, K. S., ... Asmundson, G. J. G. (2018). Mental disorder symptoms among public safety personnel in Canada. *The Canadian Journal of Psychiatry*, 63(1), 54–64. <https://doi.org/10.1177/0706743717723825>
- Carleton, R. N., Ricciardelli, R., Taillieu, T., Mitchell, M. M., Andres, E., & Afifi, T. O. (2020). Provincial correctional service workers: The prevalence of mental disorders. *International Journal of Environmental Research and Public Health*, 17(7), Article 2203. <https://doi.org/10.3390/ijerph17072203>
- Cheng, H.-L., Wang, C., McDermott, R. C., Kridel, M., & Rislin, J. L. (2018). Self-stigma, mental health literacy, and attitudes toward seeking psychological help. *Journal of Counseling & Development*, 96(1), 64–74. <https://doi.org/10.1002/jcad.12178>
- Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüsch, N., Brown, J. S. L., & Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine*, 45(1), 11–27. <https://doi.org/10.1017/S0033291714000129>
- Corsianos, M. (2011). Responding to officers' gendered experiences through community policing and improving police accountability to citizens. *Contemporary Justice Review*, 14(1), 7–20. <https://doi.org/10.1080/10282580.2011.541074>

- DeHart, D., & Iachini, A. L. (2019). Mental health and trauma among incarcerated persons: Development of a training curriculum for correctional officers. *American Journal of Criminal Justice*, 44(3), 457–473. <https://doi.org/10.1007/s12103-019-9473-y>
- Evans-Lacko, S., Little, K., Meltzer, H., Rose, D., Rhydderch, D., Henderson, C., & Thornicroft, G. (2010). Development and psychometric properties of the Mental Health Knowledge Schedule. *The Canadian Journal of Psychiatry*, 55(7), 440–448. <https://doi.org/10.1177/070674371005500707>
- Furnham, A., & Swami, V. (2018). Mental health literacy: A review of what it is and why it matters. *International Perspectives in Psychology: Research, Practice, Consultation*, 7(4), 240–257. <https://doi.org/10.1037/ipp0000094>
- Goffman, E. (1961). *Asylums: Essays on the social situation of mental patients and other inmates* (1. Anchor Books ed). Anchor Books.
- Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Prentice-Hall.
- Hadlaczky, G., Hökby, S., Mkrтчian, A., Carli, V., & Wasserman, D. (2014). Mental Health First Aid is an effective public health intervention for improving knowledge, attitudes, and behaviour: A meta-analysis. *International Review of Psychiatry*, 26(4), 467–475. <https://doi.org/10.3109/09540261.2014.924910>
- Henderson, C., Evans-Lacko, S., & Thornicroft, G. (2013). Mental illness stigma, help seeking, and public health programs. *American Journal of Public Health*, 103(5), 777–780. <https://doi.org/10.2105/AJPH.2012.301056>
- Jessiman-Perreault, G., Smith, P. M., & Gignac, M. A. M. (2021). Why are workplace social support programs not improving the mental health of Canadian correctional officers? An examination of the theoretical concepts underpinning support. *International Journal of Environmental Research and Public Health*, 18(5), 2665. <https://doi.org/10.3390/ijerph18052665>
- Kim, J. E., Saw, A., & Zane, N. (2015). The influence of psychological symptoms on mental health literacy of college students. *American Journal of Orthopsychiatry*, 85(6), 620–630. <https://doi.org/10.1037/ort0000074>
- Konyk, K., Ricciardelli, R., Taillieu, T., Affi, T. O., Groll, D., & Carleton, R. N. (2021). Assessing relative stressors and mental disorders among Canadian provincial correctional workers. *International Journal of Environmental Research and Public Health*, 18(19), Article 10018. <https://doi.org/10.3390/ijerph181910018>
- Krakauer, R. L., Stelnicki, A. M., & Carleton, R. N. (2020). Examining mental health knowledge, stigma, and service use intentions among public safety personnel. *Frontiers in Psychology*, 11, Article 949. <https://doi.org/10.3389/fpsyg.2020.00949>
- Lee, J. E. C., Fikretoglu, D., Blais, A.-R., Sudom, K. A., & Beatty, E. (2016). Mental health services use intentions among Canadian military recruits. *Military Psychology*, 28(6), 498–505. <https://doi.org/10.1037/mil0000112>
- Mankus, A. M., Boden, M. T., & Thompson, R. J. (2016). Sources of variation in emotional awareness: Age, gender, and socioeconomic status. *Personality and Individual Differences*, 89, 28–33. <https://doi.org/10.1016/j.paid.2015.09.043>
- Miles, R., Rabin, L., Krishnan, A., Grandoit, E., & Kloskowski, K. (2020). Mental health literacy in a diverse sample of undergraduate students: Demographic, psychological, and academic correlates. *BMC Public Health*, 20(1), Article 1699. <https://doi.org/10.1186/s12889-020-09696-0>
- Newell, C. J., Ricciardelli, R., Czarnuch, S. M., & Martin, K. (2022). Police staff and mental health: Barriers and recommendations for improving help-seeking. *Police Practice and Research*, 23(1), 111–124. <https://doi.org/10.1080/15614263.2021.1979398>

- Norman, M., & Ricciardelli, R. (2022). Operational and organisational stressors in community correctional work: Insights from probation and parole officers in Ontario, Canada. *Probation Journal*, 69(1), 86–106. <https://doi.org/10.1177/0264550520984253>
- Office of the Auditor General of Canada. (2019). Annual report 2019: Reports on correctional services and court operations. Office of the Auditor General of Canada. https://www.auditor.on.ca/en/content/annualreports/arreports/en19/2019AR_v3_en_web.pdf
- OMSG. (2022, April 25). Correctional services. <https://www.ontario.ca/page/ministry-solicitor-general>
- Ricciardelli, R. (2015). Establishing and asserting masculinity in Canadian penitentiaries. *Journal of Gender Studies*, 24(2), 170–191. <https://doi.org/10.1080/09589236.2013.812513>
- Ricciardelli, R. (2019). *Also serving time: Canada's provincial and territorial correctional officers*. University of Toronto Press.
- Ricciardelli, R., & Adorjan, M. (2021). Correctional officer training: Opportunities and challenges of the AMstregnth Program in Canada. *Journal of Forensic Psychology Research and Practice*, 21(1), 40–60. <https://doi.org/10.1080/24732850.2020.1829445>
- Ricciardelli, R., Carleton, R. N., Gacek, J., & Groll, D. L. (2020). Understanding needs, breaking down barriers: Examining mental health challenges and well-being of correctional staff in ontario, canada. *Frontiers in Psychology*, 11, 1–10. <https://doi.org/10.3389/fpsyg.2020.01036>
- Ricciardelli, R., Carleton, R. N., Mooney, T., & Cramm, H. (2020). “Playing the system”: Structural factors potentiating mental health stigma, challenging awareness, and creating barriers to care for Canadian public safety personnel. *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine*, 24(3), 259–278. <https://doi.org/10.1177/1363459318800167>
- Ricciardelli, R., Czarnuch, S., Affi, T. O., Taillieu, T., & Carleton, R. N. (2020). Public safety personnel's interpretations of potentially traumatic events. *Occupational Medicine*, 70(3), 155–161. <https://doi.org/10.1093/occmed/kqaa007>
- Ricciardelli, R., Haynes, S. H., Burdette, A., Keena, L., McCreary, D. R., Carleton, R. N., Lambert, E. G., & Groll, D. (2021). Mental health, stigma, gender, and seeking treatment: Interpretations and experiences of prison employees. *Applied Psychology in Criminal Justice*, 16(1), 107–127.
- Ricciardelli, R., & Power, N. G. (2020). How “conditions of confinement” impact “conditions of employment”: The work-related well-being of provincial correctional officers in Atlantic Canada. *Violence and Victims*, 35(1), 88–107. <https://doi.org/10.1891/0886-6708.VV-D-18-00081>
- Ricciardelli, R., Siqueira Cassiano, M., Adorjan, M., & Mitchell, M. M. (2021). AMStrength program in Canadian federal correctional services: Correctional officers' views and interpretations. *Criminal Justice Studies*, 34(4), 459–476. <https://doi.org/10.1080/1478601X.2021.1997277>
- Ricciardelli, R., Tamara, T., Mitchell, M. M., Groll, D., Affi, T., & Carleton, R. N. (2022). Exposures to potentially traumatic events among provincial correctional workers in Ontario, Canada. *Violence and Victims*, 37(1), 77–100. <https://doi.org/10.1891/VV-D-21-00009>
- Schnyder, N., Panczak, R., Groth, N., & Schultze-Lutter, F. (2017). Association between mental health-related stigma and active help-seeking: Systematic review and meta-analysis. *British Journal of Psychiatry*, 210(4), 261–268. <https://doi.org/10.1192/bjp.bp.116.189464>
- Siqueira Cassiano, M., Ozturk, F., & Ricciardelli, R. (2022). Fear of infectious diseases and perceived contagion risk count as an occupational health and safety hazard: Accounts from correctional officer recruits in Canada. *Journal of Criminology*, 55(1), 47–64. <https://doi.org/10.1177/26338076211058250>
- Spinaris, C., Denhof, M., & Morton, G. (2013). Impact of traumatic exposure on corrections professionals. 72.
- Statistics Canada. (2012). *Mental and substance use disorders in Canada (No. 82-624-X)*. Government of Canada. <https://www150.statcan.gc.ca/n1/pub/82-624-x/2013001/article/11855-eng.htm>

- Szeto, A. C. H., Luong, D., & Dobson, K. S. (2013). Does labeling matter? An examination of attitudes and perceptions of labels for mental disorders. *Social Psychiatry and Psychiatric Epidemiology*, 48(4), 659–671. <https://doi.org/10.1007/s00127-012-0532-7>
- Vogel, D. L., Heimerdinger-Edwards, S. R., Hammer, J. H., & Hubbard, A. (2011). “Boys don’t cry”: Examination of the links between endorsement of masculine norms, self-stigma, and help-seeking attitudes for men from diverse backgrounds. *Journal of Counseling Psychology*, 58(3), 368–382. <https://doi.org/10.1037/a0023688>
- Vogel, D. L., & Wei, M. (2005). Adult attachment and help-seeking intent: The mediating roles of psychological distress and perceived social support. *Journal of Counseling Psychology*, 52(3), 347–357. <https://doi.org/10.1037/0022-0167.52.3.347>
- Xu, Z., Huang, F., Kösters, M., Staiger, T., Becker, T., Thornicroft, G., & Rüschi, N. (2018). Effectiveness of interventions to promote help-seeking for mental health problems: Systematic review and meta-analysis. *Psychological Medicine*, 48(16), 2658–2667. <https://doi.org/10.1017/S0033291718001265>

Error! Bookmark not defined.

Table 1

Sociodemographic Characteristics and Comparison of MAKS-6, OMS-WA and MHSUQ Scores

Sociodemographic Variables	% (n) ¹	MAKS-6	OMS-WA	MHSUQ
		M (SD)	M (SD)	M (SD)
Sex				
Male	48.3 (424)	22.72 (3.20)	22.27 (8.20)	22.08 (6.60)
Female	51.4 (451)	23.97 (3.14)	19.20 (7.63)	23.62 (5.92)
Test statistic	-	t(871) = -5.83***	t(864) = 5.70***	t(868) = -3.63***
Effect size (Cohen's d)	-	.394	.388	.246
Age Group				
18-29	17.3 (152)	22.76 (2.89)	21.49 (9.25)	21.04 (6.65) ^b
30-39	29.3 (2570)	22.35 (3.20)	19.89 (7.97)	22.77 (6.42) ^{a,b}
40-49	26.2 (230)	23.27 (3.30)	20.99 (7.88)	22.86 (6.17) ^{a,b}
50-59	23.9 (210)	23.73 (3.32)	21.06 (7.50)	23.85 (6.02) ^a
60+	2.5 (22)	24.77 (3.44)	20.14 (7.58)	26.55 (3.11) ^a
Test statistic	-	F(4, 864) = 3.15*	F(4, 856) = 1.20	F(4, 864) = 6.46*
Effect Size (η_p^2)	-	.014	.006	.029
Professional Role Categories				
Institutional Wellness	7.7 (68)	25.28 (3.09) ^a	18.14 (6.21) ^b	23.73 (5.77)
Institutional Training	3.3 (29)	24.10 (2.65) ^{a,b}	17.66 (6.39) ^{a,b}	24.90 (6.11)
Institutional Governance	8.9 (78)	23.37 (3.15) ^b	21.14 (7.45) ^{a,b}	23.53 (5.98)
Institutional Corrections Officers	57.1 (501)	22.59 (3.12) ^b	22.16 (8.48) ^a	22.13 (6.49)
Probation/Parole Officers	15.3 (134)	24.99 (2.83) ^a	18.47 (7.05) ^b	23.87 (6.04)
Institutional Administration	3.2 (28)	22.32 (3.01) ^b	19.68 (8.71) ^{a,b}	23.00 (6.15)
Test statistic	-	F(5, 830) = 20.19***	F(5, 822) = 7.67***	F(5, 827) = 3.03**
Effect Size (η_p^2)	-	.108	.045	.018
Marital status				
Single	18.6 (163)	22.55 (3.21) ^b	22.68 (9.83) ^a	21.17 (6.91) ^b
Separated/Divorced	13.4 (118)	23.59 (3.24) ^{a,b}	20.58 (7.54) ^{a,b}	23.21 (5.98) ^a
Married/Common-law	63.0 (553)	23.55 (3.20) ^a	20.35 (7.57) ^b	23.17 (6.12) ^{a,b}
Remarried	3.5 (31)	23.55 (3.39) ^{a,b}	20.03 (7.71) ^{a,b}	24.94 (5.48) ^{a,b}
Test statistic	-	F(3, 859) = 4.32*	F(3, 852) = 3.60*	F(3, 856) = 5.64*
Effect Size (η_p^2)	-	.015	.013	.019
Education				
High school graduate or less	5.5 (48)	22.08 (2.67) ^b	23.30 (6.96) ^a	22.81 (6.72)
Some post-secondary school	45.0 (395)	22.80 (3.12) ^b	21.85 (8.03) ^a	22.55 (6.37)
University degree/4-year college or higher	46.7 (410)	24.01 (3.28) ^a	19.59 (8.16) ^b	23.11 (6.22)
Test statistic	-	F(2, 848) = 18.64***	F(2, 841) = 10.19***	F(2, 845) = 0.78
Effect Size (η_p^2)	-	.042	.024	.002
Language first spoken				
English	87.5 (768)	23.43 (3.25)	20.62 (8.02)	22.75 (6.33) ^b
French	3.2 (28)	22.68 (3.42)	21.54 (9.07)	20.36 (7.37) ^b
Other	8.7 (76)	22.96 (3.01)	21.68 (8.36)	24.75 (5.03) ^a
Test statistic	-	F(2, 867) = 1.35	F(2, 860) = 0.72	F(2, 864) = 5.79**

Effect Size (η_p^2)	-	.003	.002	.013
Years of service				
Less than 4 years	28.6 (251)	22.94 (3.02)	20.42 (8.24)	21.56 (6.73) ^b
5 to 9 years	12.4 (109)	22.72 (3.17)	20.59 (8.56)	23.07 (6.52) ^{a,b}
10 to 15 years	18.8 (165)	23.87 (3.19)	19.93 (7.93)	23.51 (5.86) ^{a,b}
More than 16 years	39.0 (342)	23.60 (3.35)	21.36 (7.79)	23.39 (6.05) ^a
Test statistic	-	F(3, 853) = 4.87**	F(3, 853) = 1.37	F(34, 858) = 4.97**
Effect Size (η_p^2)	-	.017	.005	.017
Positive Screening for One or More Mental Health Disorders				
Any Mood Disorder	37.7 (331)	-	-	-
Any Anxiety Disorder	32.8 (288)	-	-	-
Any Mental Disorder	51.4 (451)	-	-	-
Total Sample	n = 878	23.36 (3.23)	20.72 (8.07)	22.86 (6.30)

Note. Lettered superscripts within each column category indicate significant differences between category

groups on respective screening measure at $p \leq .05$. Means followed by a common letter are not

significantly different. M(SD) = Mean (Standard Deviation); η_p^2 = partial Eta Square.

¹Total percentages may not sum to 100 and ns may not sum to 878 due to non-response or responding "other."

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$ – Statistically significantly different; Holm-Bonferroni adjustment was applied to alpha level to control Type I error in multiple comparisons.

Table 2

Comparisons Among Professional Role Categories on MAKS-6 Scores

MAKS-6 Question	Total Sample (n = 836)	Institutional Wellness (n = 68)	Institutional Training (n = 29)	Institutional Governance (n = 78)	Institutional Corrections Officers (n = 499)	Probational Officers (n = 134)	Institutional Administration (n = 28)	Test Statistic	Effect Size (η_p^2)
Most people with mental health problems want to have paid employment.	3.99 (1.10)	4.15 (1.24)	4.10 (1.11)	4.05 (1.22)	3.90 (1.07)	4.26 (1.02)	3.82 (1.02)	F(5, 830) = 2.93*	.017
If a friend had a mental health problem I would know what advice to give them to get professional help.	3.92 (1.03)	4.53 (0.70) ^a	4.17 (0.97) ^{a,b}	3.85 (1.07) ^b	3.72 (1.04) ^b	4.45 (0.77) ^a	3.61 (1.10) ^b	F(5, 830) = 18.53***	.100
Medication can be an effective treatment for people with mental health problems.	4.28 (0.85)	4.60 (0.76) ^a	4.48 (0.69) ^{a,b}	4.35 (0.77) ^{a,b}	4.17 (0.88) ^b	4.45 (0.79) ^{a,b}	4.25 (0.70) ^{a,b}	F(5, 830) = 5.32***	.031
Psychotherapy (e.g., talking therapy or counselling) can be an effective treatment for people with mental health problems.	4.35 (0.78)	4.71 (0.55) ^a	4.66 (0.55) ^{a,b}	4.33 (0.83) ^{a,b}	4.22 (0.81) ^b	4.65 (0.60) ^{a,b}	4.25 (0.80) ^{a,b}	F(5, 830) = 11.47***	.065
People with severe mental health problems can fully recover.	3.44 (1.09)	3.79 (1.07) ^a	3.69 (1.00) ^{a,b}	3.56 (1.10) ^{a,b}	3.31 (1.11) ^b	3.63 (0.99) ^{a,b}	3.46 (1.04) ^{a,b}	F(5, 830) = 4.27***	.025
Most people with mental health problems go to a healthcare professional to get help.	2.68 (1.18)	2.50 (1.33)	3.00 (1.31)	2.77 (1.17)	2.72 (1.14)	2.46 (1.18)	3.07 (1.18)	F(5, 830) = 2.54*	.015
Total Score	23.31 (3.23)	25.28 (3.09) ^a	24.10 (2.65) ^{a,b}	23.37 (3.15) ^b	22.59 (3.12) ^b	24.99 (2.83) ^a	22.32 (3.01) ^b	F(5, 830) = 20.19***	.108

Note. Lettered superscripts within each column category indicate significant differences between category groups on respective screening measure at $p \leq .05$. Means followed by a common letter are not significantly different. Test statistics are based on comparisons among professional role category only. Unless otherwise indicated, data are represented as Mean (Standard Deviation).

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$ – Statistically significantly different; Holm-Bonferroni adjustment was applied to alpha level to control Type I error in multiple comparisons.

Table 3

Comparisons Among Occupational Categories on OMS-WA Attitudes Subscale Scores

OMS-WA Attitudes Subscale Items	Total Sample (n = 832)	Institutional Wellness (n = 68)	Institutional Training (n = 29)	Institutional Governance (n = 78)	Institutional Corrections Officers (n = 496)	Probational Officers (n = 133)	Institutional Administration (n = 28)	Test Statistic	Effect Size (η_p^2)
I would be upset if a co-worker with a mental illness always sat next to me at work.	1.87 (0.95)	1.56 (0.70)	1.66 (0.72)	1.63 (0.74)	1.98 (0.99)	1.77 (0.99)	1.96 (0.92)	F(5, 826) = 4.51***	.027
I would not want to be supervised by someone who had been treated for a mental illness.	1.93 (1.00)	1.59 (0.72) ^b	1.55 (0.69) ^{a,b}	1.81 (0.93) ^{a,b}	2.09 (1.06) ^a	1.71 (0.87) ^b	1.75 (1.01) ^{a,b}	F(5, 827) = 6.40***	.037
I would not be close friends with a co-worker who I knew had a mental illness.	1.65 (0.85)	1.50 (0.68)	1.34 (0.48)	1.67 (0.80)	1.74 (0.90)	1.47 (0.71)	1.50 (1.00)	F(5, 826) = 3.69**	.022
I would try to avoid a co-worker with a mental illness.	1.76 (0.91)	1.56 (0.66)	1.45 (0.87)	1.76 (0.83)	1.86 (0.97)	1.56 (0.80)	1.64 (0.99)	F(5, 826) = 3.76**	.022
Employees with a mental illness are often more dangerous than the average employee.	1.93 (1.00)	1.60 (0.79) ^b	1.55 (0.83) ^{a,b}	1.96 (1.00) ^{a,b}	2.11 (1.05) ^a	1.53 (0.80) ^b	1.75 (0.89) ^{a,b}	F(5, 826) = 9.95***	.057
If I knew a co-worker who had a mental illness, I would not date them.	2.37 (1.20)	2.26 (1.14)	2.34 (1.32)	2.55 (1.12)	2.43 (1.21)	2.18 (1.21)	2.07 (1.09)	F(5, 824) = 1.68	.010
Employees with a mental illness often become violent if not treated.	2.00 (0.99)	1.64 (0.81) ^b	1.59 (0.73) ^{a,b}	2.06 (0.99) ^{a,b}	2.15 (1.01) ^a	1.69 (0.95) ^b	1.93 (0.90) ^{a,b}	F(5, 824) = 7.69***	.045
I would not want to work with a co-worker who had been treated for a mental illness.	1.71 (0.83)	1.47 (0.63) ^{a,b}	1.41 (0.57) ^{a,b}	1.71 (0.74) ^{a,b}	1.82 (0.87) ^a	1.47 (0.75) ^b	1.68 (1.02) ^{a,b}	F(5, 826) = 5.86***	.034
Most violent crimes in the workplace are committed by employees with mental illness.	2.02 (1.03)	1.90 (0.93)	1.69 (0.93)	2.23 (1.15)	2.08 (1.04)	1.84 (0.94)	1.93 (1.09)	F(5, 826) = 2.69*	.016
You can never know what an employee with a mental illness is going to do.	2.19 (1.04)	1.75 (0.84) ^b	1.72 (0.96) ^{a,b}	2.31 (1.05) ^{a,b}	2.32 (1.04) ^a	1.96 (0.97) ^b	2.14 (1.21) ^{a,b}	F(5, 826) = 6.88***	.040
Employees with serious mental illnesses need to be locked away.	1.50 (0.81)	1.28 (0.51) ^{a,b}	1.34 (0.86) ^{a,b}	1.46 (0.68) ^{a,b}	1.62 (0.90) ^a	1.27 (0.59) ^b	1.32 (0.61) ^{a,b}	F(5, 826) = 5.79***	.034

Total Score	20.91 (8.11)	18.14 (6.21) ^b	17.66 (6.39) ^{a,b}	21.14 (7.45) ^{a,b}	22.16 (8.48) ^a	18.47 (7.05) ^b	19.68 (8.71) ^{a,b}	F(5, 826) = 7.67 ^{***}	.045
-------------	-----------------	---------------------------	-----------------------------	--------------------------------	---------------------------	------------------------------	-----------------------------	------------------------------------	------

Note. Lettered superscripts within each column category indicate significant differences between category groups on respective screening measure at $p \leq .05$. Means followed by a common letter are not significantly different. Test statistics are based on comparisons among occupational category only. Unless otherwise indicated data are represented as Mean (Standard Deviation).

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$ – Statistically significantly different; Holm-Bonferroni adjustment was applied to alpha level to control Type I error in multiple comparisons.

Table 4

Comparisons Among Occupational Categories on MHSUQ Scores

MHSUQ Items	Total Sample (n = 836)	Institutional Wellness (n = 67)	Institutional Training (n = 29)	Institutional Governance (n = 78)	Institutional Corrections Officers (n = 500)	Probational Officers (n = 134)	Institutional Administration (n = 28)	Test Statistic	Effect Size (η_p^2)
If I developed mental health problems, I would expect to seek mental health treatment from a professional.	5.63 (1.73)	5.87 (1.55) ^{a,b}	6.21 (1.61) ^{a,b}	5.82 (1.73) ^{a,b}	5.44 (1.79) ^b	5.98 (1.51) ^a	5.61 (1.66) ^{a,b}	F(5, 829) = 3.42**	.020
If I developed mental health problems, I would want to seek mental health treatment from a professional	5.72 (1.72)	6.00 (1.55)	6.24 (1.53)	5.97 (1.53)	5.55 (1.80)	5.96 (1.63)	5.71 (1.54)	F(5, 830) = 2.71*	.016
If I developed mental health problems, I would intend to seek mental health treatment from a professional.	5.74 (1.68)	5.94 (1.61) ^{a,b}	6.17 (1.58) ^a	5.92 (1.60) ^{a,b}	5.59 (1.73) ^b	6.01 (1.53) ^{a,b}	5.86 (1.56) ^{a,b}	F(5, 827) = 2.33*	.014
All in all, how likely is it that you would seek mental health treatment from a professional if you developed a mental health problem in the future?	5.69 (1.69)	5.93 (1.60)	6.28 (1.46)	5.81 (1.64)	5.54 (1.74)	5.93 (1.60)	5.82 (1.49)	F(5, 828) = 2.38*	.014
Total Score	22.80 (6.33)	23.73 (5.77)	24.90 (6.11)	23.53 (5.98)	22.13 (6.49)	23.87 (6.04)	23.00 (6.15)	F(5, 828) = 2.41*	.014

Note. Lettered superscripts within each column category indicate significant differences between category groups on respective screening measure at $p \leq .05$. Means followed by a common letter are not significantly different. Test statistics are based on comparisons among occupational category only. Unless otherwise indicated data are represented as Mean (Standard Deviation).

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$ – Statistically significantly different; Holm-Bonferroni adjustment was applied to alpha level to control Type I error in multiple comparisons.

Table 5

Comparisons Between those With and Without a Positive Screen on MHSUQ Scores

MHSUQ Items	Positive Screening for One or More Mental Health Disorders (n = 449)	No Positive Screen (n = 354)	Test Statistic	Effect Size (Cohen's d)
If I developed mental health problems, I would expect to seek mental health treatment from a professional.	5.47 (1.78)	5.84 (1.60)	t(801) = 3.13 **	.222
If I developed mental health problems, I would want to seek mental health treatment from a professional	5.54 (1.82)	5.95 (1.55)	t(801) = 3.39***	.241
If I developed mental health problems, I would intend to seek mental health treatment from a professional.	5.61 (1.74)	5.90 (1.55)	t(799) = 2.45*	.174
All in all, how likely is it that you would seek mental health treatment from a professional if you developed a mental health problem in the future?	5.49 (1.77)	5.92 (1.54)	t(800) = 3.60***	.256
Total Score	22.13 (6.55)	23.60 (5.87)	t(801) = 3.31***	.236

Note. Unless otherwise indicated data are represented as Mean (Standard Deviation).

*p ≤ .05; **p ≤ .01; ***p ≤ .001 – Statistically significantly different.