THE NATIONAL TRAJECTORY PROJECT OF INDIVIDUALS FOUND NOT CRIMINALLY RESPONSIBLE ON ACCOUNT OF MENTAL DISORDER. PART 5: HOW ESSENTIAL ARE GENDER-SPECIFIC FORENSIC PSYCHIATRIC SERVICES?

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ABSTRACT

OBJECTIVE: To state the sociodemographic characteristics, mental health histories, index offence characteristics, and criminal histories of male and female forensic psychiatric patients. Clinicians and researchers advocate that mental health and criminal justice organizations implement gender-specific services; however, few studies have sampled forensic patients to evaluate the extent to which men's and women's treatment and management needs are different.

METHOD: Data were collected from Review Board files from May 2000 to April 2005 in the 3 largest Canadian provinces. Using official criminal records, participants were followed for 3 to 8 years, until December 2008. The final sample comprised 1800 individuals: 15.6% were women and 84.4% were men.

RESULTS: There were few demographic differences, but women had higher psychosocial functioning than men. Both men and women had extensive mental health histories; women were more likely diagnosed with mood disorders and PDs and men were more likely diagnosed with schizophrenia spectrum disorders and SUDs. The nature of the index offence did not differ by gender, except women were more likely to have perpetrated murders and attempted murders. For offences against a person, women were more likely to offend against offspring and partners and less likely to offend against strangers, compared with men. Women had significantly less extensive criminal histories than men.

CONCLUSIONS: Not criminally responsible on account of mental disorder–accused women have a distinct psychosocial, clinical, and criminological profile from their male counterparts, which may suggest gender-specific assessment, risk management, and treatment in forensic services could benefit patients. The findings are also consistent with traditional models (Risk-Need-Responsivity) and ultimately demonstrate the importance of individual assessment and client-centred services.

KEYWORDS: female, gender, forensic, mental health, psychiatric, National Trajectory Project, review board, not criminally responsible on account of mental disorder

CLINICAL IMPLICATIONS

- The findings suggest that NCRMD women are a multiproblem population and present with a profile that overlaps considerably with their male counterparts.
- Compared with men, despite similarities in the severity of the index offence, women found NCRMD are significantly less likely to have a criminal history and to offend against strangers, suggesting that they may present less risk to the public.
- The results reflect the essential nature of individualized assessment and treatment and offer preliminary support for testing gender-informed approaches to risk assessment and gender-responsive treatment in forensic psychiatric settings.

LIMITATIONS

- Generalizability is limited owing to sampling from only 3 Canadian provinces.
- The study is based on archival data and official records; in the absence of interviews we were limited in the variables we could attend to (for example, insufficient information pertaining to strengths or protective factors) and the confidence we have in some data (for example, diagnoses), as a result of missing information.
- Further research specific to Aboriginal women another subgroups (for example, diagnostic and offence categories) is needed.

It is well recognized that women in the general population represent much less risk of violence and crime to the general public than men.[1] Women are substantially less likely to come into conflict with the law while men are disproportionately responsible for violent offences (for example, robbery, sexual offences, assault, and homicide).[2,3] According to feminist criminological theories, the genesis of female crime is proposed to represent risk factors and pathways that are unique to girls and women.[4,5] In light of this perspective, experts have been increasingly advocating that the provision of services must reflect the gender-specific profiles of women offenders.[6,7] For instance, emotional, physical, and sexual abuse among female offenders has been found to exceed abuse histories among male offenders.[8,9] Women who come into conflict with the law typically have substantially higher rates of mental disorder, social and environmental disadvantage (for example, education, unemployment, and poverty), and unique behavioural manifestations of mental disorders (for example, more frequent self-harm and suicide attempts) than men.[1]

Research suggests that the gender gap in the risk of aggression, crime and violence is considerably reduced among people with mental illness. For example, Nicholls and al[10] found that among all forensic psychiatric inpatients treated during a 1-year period (n = 527), women perpetrated all forms of aggression—any aggression, verbal aggression, property damage, physical aggression, and sexually inappropriate and (or) aggressive behaviour—at rates that equalled or exceeded male rates. These findings are consistent with a larger body of work pointing to the extent to which psychiatric dysfunction drastically mitigates the otherwise large sex crime ratio in aggression and offending.[11,12]

The discourse and research on gender-informed care has been heavily concentrated on correctional samples, to the neglect of women in the forensic system.[13] Research examining the extent to which men and women in conflict with the law require gender-specific services has also yielded somewhat equivocal findings.[6,14] Moreover, the sociological and criminological literature suggests that we may expect to see important differences between correctional and forensic samples of women, as a reflection of the medicalization of female offending, compared with the criminalization of male offending (that is, reconstructing female offending as a reflection of the need for treatment, compared with punishment in response to male offending), the chivalry hypothesis (paternalism reflected in sentencing disparities),[15–17] or, conversely, biased perspectives of women who perpetrate offences, particularly of a violent nature, as doubly deviant (that is, resulting in harsher responses to women who transgress social and [or] legal norms and gender norms).[18]

In one of the few studies to speak to gender-specific interventions in the forensic context, Coid and al[19] recommended therapeutic regimes specialized for women to reflect their unique psychiatric, criminal histories, and index offences. Identifying the primary drivers relevant to offending and violence among women with mental illness who come into conflict with the law is the first step to ensuring appropriate services and enhancing community safety for this population.

Present Study

The purpose of the NTP was to document the characteristics of people found NCRMD in Canada. Our other papers in this special issue have investigated national trends and cross-provincial comparisons.[20–23] An overarching objective of the NTP was to examine each of the findings with respect to gender. The purpose of our study was to compare the profiles of men and women found NCRMD. Our 4 hypotheses were as follows:

1) The women would present with unique sociodemographic profiles indicative of greater marginalization, more mental health problems, and poorer functioning than men.[1]

2) Based on lifetime prevalence rates of mental disorders, we expected the men and women would have different patterns of diagnoses.[24] However,

given the specific legislation for an NCRMD finding, we hypothesized men and women would have similar symptoms at the index offence.[25]

3) Despite anticipating no differences in the severity of the most serious index offence,[10–12] differences were expected to be evident in the relationship with the victim (that is, women were hypothesized to be more likely to offend against children and spouses and less likely to offend against strangers than men).[1,26]

4) Compared with the men, we anticipated the women would have less extensive criminal histories (for example, first offence at older age, fewer previous convictions, fewer violent offences, and fewer prior NCRMD findings).[1,27]

METHOD

Our paper is part of the NTP, described in greater detail in this special feature.[23] Briefly, we sampled 1800 men (84.4%) and women (15.6%) found NCRMD and under the jurisdiction of RBs from the 3 provinces with the most NCRMD findings in Canada (British Columbia = 222; Ontario = 484; Quebec = 1094). Weights were used to ensure the regional representativeness of the Quebec sample, thus totals will not always add to 1800 or 100%. The sample included people found NCRMD between May 2000 and April 2005. Participants were followed for 3 to 8 years using official criminal records. Reflecting details gleaned from expert reports to the RB and the dispositions and rationale provided by the RB, as well as Royal Canadian Mounted Police finger print services records (lifetime criminal records), we collected extensive, archival information pertaining to sociodemographic characteristics, criminal histories, mental health histories, and index offences. The institutional RBs at each of the investigator's primary affiliated universities approved this research.

ANALYTIC STRATEGY

To compare and contrast the characteristics of male and female NCRMD–accused index offences, we completed bivariate analyses using chi-square tests for categorical variables and K-W tests for continuous variables that were not normally distributed. Post hoc pairwise comparisons were conducted for significant omnibus results. Next, a logistic regression was used to define NCRMD–accused profiles by gender, all other things being equal. Only variables with less than 10% missing data were included to avoid excessive sample reduction in the overall model.

RESULTS

SOCIODEMOGRAPHIC CHARACTERISTICS

Women represented a minority of the total sample (15.6%) and the gender split did not vary significantly across the 3 provinces (British Columbia = 14.9%; Ontario = 16.7%; Quebec = 15.2%) [$\chi 2$ (n = 1799) = 0.71, df = 2, $P < 0.70$]. With the exception that women were older at the time of the index offence, no gender differences were found regarding basic demographic characteristics, including language, ethnicity, or country of birth (Table 1). As expected, there were several significant gender differences in the psychosocial profile of the patients, but these tended to be in the opposite direction hypothesized. Compared with the men, the women were more likely to be in a relationship and to have completed a high school diploma prior to the index offence. Men were significantly more likely than women to be homeless or to have been living in a supervised setting, whereas women were more likely to be residing alone or with family (Table 1).

MENTAL HEALTH CHARACTERISTICS

We examined psychiatric histories, mental health symptoms at the time of the index offence, and the experts' diagnoses at the time of the NCRMD verdict, by gender (Table 2).

Consistent with women being older at the time of the index offence, we found that the women (mean years 31.33, SD 11.89) were also older than the men (mean years 28.21, SD 11.41) at the time of

Table 1 Sociodemographic characteristics at the time of the index verdict of not criminally responsible on account of mental disorder–accused men and women

Sociodemographic characteristic	Men *n (%)*	Women *n (%)*	*χ2, df, n, P*
Location			
British Columbia	189 (12.4)	33 (11.8)	0.71, 2, 1799, 0.70
Quebec	927 (61.0)	166 (59.3)	
Ontario	403 (26.5)	81 (28.9)	
Aboriginal status	45 (3.0)	8 (2.9)	0.009, 1, 1800, <0.92
High school completed	507 (47.3)	115 (60.1)	10.81, 1, 1266, <0.001
In a relationship	200 (14.3)	71 (27.6)	28.19, 1, 1656, <0.001
Language			
English	668 (61.1)	117 (63.6)	1.75, 2, 1278, 0.42
French	294 (26.9)	51 (27.7)	
Other	132 (12.1)	16 (8.7)	
Country of birth			
Canada	635 (65.7)	111 (68.1)	0.37, 1, 1130, 0.54
Other	332 (34.3)	52 (31.9)	
Residential status			15.81, 4, 1561, 0.003[b]
Living alone	399 (30.3)	94 (38.2)	
Living with spouse, family, or friends	572 (43.5)	113 (46.1)	
Supervised setting	113 (8.6)	17 (6.9)	
Homeless	133 (10.1)	11 (4.5)	
Other	99 (7.5)	10 (4.1)	
Income			2.67, 2, 1372, 0.26
Own paid work (or partner)	189 (16.2)	28 (13.9)	
Pension and (or) welfare	828 (70.8)	154 (76.2)	
Other	153 (13.1)	20 (9.9)	
	mean (SD)	*mean (SD)*	
Age, years, mean (SD)	35.8 (12.5)	40.6 (11.2)	53.24, 1, 1989, <0.001[a]

Weights were used to ensure the regional representativeness of the Quebec sample, thus totals will not always add to 1800 or 100%.

a Kruskal–Wallis

b Living alone, men < women χ2 (n = 1562) = 5.98, df = 1, P = 0.01; homeless, men > women χ2 (n = 1130) = 7.86, df = 1,
P = 0.005

their first psychiatric hospitalization [K-W χ2 (*n* = 1608) = 20.34, *df* = 1, *P* < 0.001]. There were no gender differences regarding participants' ages at the time of their first psychiatric consultations (women mean years 28.25, SD 12.59; men mean years 26.48, SD 11.68) [K-W χ2 (*n* = 1102) = 2.79, *df* = 1, *P* < 0.10]. Men and women had a comparable number of prior psychiatric hospitalizations (women mean = 4.34, SD 5.91; men mean = 3.68, SD 5.51) [K-W χ2 (*n* = 1585) = 2.56, *df* = 1, *P* = 0.11].

Regarding their primary diagnoses at the time of the NCRMD verdict, according to the expert reports provided to the courts and RBs, the women had a significantly higher rate of mood disorders than the men. SUDs were also significantly more common among the men, but we found that the rate of PDs diagnosed in the women (*n* = 40, 14.4%) exceeded that of the men (*n* = 150, 9.9%) [χ2 (*n* = 1788) = 4.91, *df* = 1, *P* = 0.03] (Table 2). Among that small minority of NCRMD–accused people to be diagnosed with a PD (*n* = 190), women (*n* = 15, 36.6%) were more likely than men (*n* = 13, 8.7%) to have been diagnosed with borderline PD. Other PDs were too rarely diagnosed to make meaningful gender comparisons.

According to both police and expert reports, the symptoms of the men and women at the time of the

Table 2 Psychiatric diagnoses and co-occurring disorders at not criminally responsible on account of mental disorder verdict and mental state at the time of the offence by gender

Psychiatric characteristic	*Men, n (%)*	*Women, n (%)*	*χ2, df, n, P*
Primary diagnosis at time of verdict			
Psychotic spectrum disorder	1084 (71.8)	184 (66.2)	3.57, 1, 1788, 0.06
Mood spectrum disorder	335 (22.2)	79 (28.4)	5.10, 1, 1787, 0.02
Other disorder[a]	91 (6.0)	15 (5.4)	0.17, 1, 1788, 0.68
SUD	490 (32.5)	60 (21.6)	13.06, 1, 1787, <0.001
PD	150 (9.9)	40 (14.4)	4.91, 1, 1788, 0.03
SMI + substance use disorder	460 (30.5)	56 (20.1)	12.22, 1, 1787, <0.001
SMI + personality disorder	135 (8.9)	34 (12.2)	2.96, 1, 1787, 0.09
Mental state at time of the offence			
Any psychotic symptom	881 (58.0)	155 (55.4)	0.68, 1, 1799, 0.41
Hallucinations—specified	307 (20.2)	50 (17.8)	0.87, 1, 1800, 0.35
Delusions—specified	707 (46.5)	123 (43.9)	0.65, 1, 1799, 0.42
Suicidal ideation	88 (5.8)	25 (8.9)	3.95, 1, 1799, 0.047
Suicide attempt	22 (1.4)	9 (3.2)	4.35, 1, 1799, 0.04
Self-harm	23 (1.5)	7 (2.5)	1.40, 1, 1799, 0.24
Homicidal ideation	85 (5.6)	24 (8.6)	3.69, 1, 1800, 0.05
Substance use and (or) under the influence	368 (24.2)	48 (17.2)	6.78, 1, 1801, 0.009

Weights were used to ensure the regional representativeness of the Quebec sample, thus totals will not always add to 1800 or 100%.

a Includes, for example, organic and anxiety disorders

PD = personality disorder; SMI = serious mental illness; SUD = substance use disorder

index offence were highly comparable (Table 2). As hypothesized, we found no gender differences regarding psychotic symptoms overall, or when we examined hallucinations and delusions separately. However, there were a handful of noteworthy gender differences regarding other mental health characteristics. The women were significantly more likely than the men to have been noted to have suicidal ideation and (or) suicide attempts at the time of the index offence. In contrast, the men were significantly more likely than the women to have been using substances at the time of the offence that lead to the index NCRMD finding.

Criminological Characteristics

Nature of the Index Offence

Overall, there was no significant difference in the nature and severity of the most severe offences that led to the men's and women's NCRMD findings [$\chi 2$ (n = 1801) = 13.75, df = 8, P = 0.09] (Table 3). As hypothesized, women (64.5%) were as likely as men (65.1%) to be facing charges for an offence against a person. In addition, women (9.6%) had substantially more offences causing death or attempting to cause death, than men (6.3%) [$\chi 2$ (n = 1799) = 4.10, df = 1, P = 0.04].

Relationship to the Victim

When the index offence involved an offence against a person, we were able to obtain details about the relationship between the NCRMD accused and their victim in 92.7% of cases (Table 3). Though offences against strangers were relatively uncommon overall (22.7%), they were significantly less likely to be perpetrated by women (15.0%) than by men (24.1%). In contrast, women were significantly more likely than men to offend against offspring (8.4% and 1.5%, respectively) and partners (18.0% and 10.8%, respectively), but there were no gender differences for offences against a parent or other family members. The rate of offences against a person involving professionals (for example, police officers and mental health workers) was nearly identical for both men and women, as was the proportion of offences involving other persons familiar to the perpetrator (for example, friends, acquaintances, roommates, co-residents, and co-patients).

Table 3 Characteristics of the index offence and relationship with the victim of not criminally responsible on account of mental disorder–accused for offences against the person

Characteristic	*Men, n (%)*	*Women, n (%)*	*χ2, df, n, P*
Most severe index offence characteristic			
Causing death or attempting	96 (6.3)	27 (9.6)	4.10, 1, 1799, 0.04
Sex offences	39 (2.6)	2 (0.7)	3.66, 1, 1801, 0.06
Assaults	401 (26.4)	78 (27.8)	0.23, 1, 1801, 0.63
Deprivation of freedom	27 (1.8)	6 (2.1)	0.17, 1, 1801, 0.68
Threats or other offences against a person	425 (28.0)	68 (24.3)	1.62, 1, 1799, 0.20
Property offences	246 (16.2)	58 (20.6)	3.34, 1, 1800, 0.07
Offensive weapons	95 (6.2)	15 (5.3)	0.34, 1, 1801, 0.56
Administration of justice	73 (4.8)	10 (3.6)	0.84, 1, 1800, 0.36
Other federal or provincial statutes	118 (7.8)	17 (6.0)	0.32, 1, 1800, 0.32
Relationship to the victim			
Stranger	221 (24.1)	25 (15.0)	6.51, 1, 1084, 0.01
Professional	211 (23.0)	37 (22.3)	0.04, 1, 1084, 0.84
Police officer	112 (12.2)	18 (10.8)	0.25, 1, 1084, 0.62
Mental health worker	78 (8.5)	15 (9.0)	0.05, 1, 1084, 0.82
Other authority figure	21 (2.3)	5 (3.0)	0.32, 1, 1084, 0.58
Family	299 (32.6)	66 (39.8)	3.25, 1, 1084, 0.07
Offspring	14 (1.5)	14 (8.4)	26.67, 1, 1084, <0.001
Partner or spouse	99 (10.8)	30 (18.0)	7.12, 1, 1084, 0.008
Parent	129 (14.1)	15 (9.0)	3.07, 1, 1084, 0.08
Other family member	57 (6.2)	7 (4.2)	0.97, 1, 1084, 0.32
Other known person	187 (20.4)	38 (22.9)	0.60, 1, 1084, 0.44
Friend or acquaintance	119 (13.0)	24 (14.4)	0.28, 1, 1084, <0.60
Roommate, co-resident, or co-patient	38 (4.1)	6 (3.6)	0.09, 1, 1084, 0.76
Other	30 (3.3)	8 (4.8)	1.00, 1, 1084, 0.32
Total	918 (100.1)	166 (100)	42.58, 10, 1084, <0.001

Weights were used to ensure the regional representativeness of the Quebec sample, thus totals will not always add to 1800 or 100%.

Fisher exact test is reported when n < 5

Criminal History

Analyses comparing the prevalence and incidence of prior offending revealed several important gender differences (Table 4). Overall, men had more extensive criminal histories, and that finding remained consistent regardless of the type of offence and verdict examined. Specifically, the men were significantly more likely to have a prior

NCRMD finding were also more likely to have a criminal conviction that predated the index offence, than the women. Taken together, men were significantly more likely to have a criminal history (prior NCRMD finding or criminal conviction combined) and this pattern held for both offences against a person and for any offence.

NCRMD Profiles by Gender

A logistic regression analysis was conducted to predict gender of NCRMD–accused people, using mental health history, criminal history, and details of the index offence as predictors, producing a significant model (–2LL [log likelihood] = 1207.72; χ2

Table 4 Criminal history of not criminally responsible on account of mental disorder (NCRMD)–accused by gender

Criminal history	*Men, n (%)*	*Women, n (%)*	*χ 2, df, n, P*	*Total, n (%)*
Any previous conviction or NCRMD finding	797 (52.5)	88 (31.4)	47.88, 1, 1799, <0.001	885 (49.2)
Offence against a person	504 (33.2)	52 (18.6)	23.57, 1, 1800, <0.001	556 (30.9)
Other offence	683 (45.0)	70 (24.9)	39.19, 1, 1800, <0.001	753 (41.8)
Any previous conviction	756 (49.7)	82 (29.2)	40.28, 1, 1801, <0.001	838 (46.5)
Offence against a person	464 (30.5)	46 (16.4)	4.44, 1, 1799, <0.001	510 (28.3)
Other offence	659 (43.4)	68 (24.2)	36.15, 1, 1801, <0.001	727 (40.4)
Any previous NCRMD finding	133 (8.8)	14 (5.0)	4.44, 1, 1799, 0.04	147 (8.2)
Offence against person	85 (5.6)	9 (3.2)	2.71, 1, 1799, 0.10	94 (5.2)
Other offence	60 (3.9)	5 (1.8)	3.18, 1, 1799, 0.08	65 (3.6)

= 96.85; *df* = 17, *P* < 0.001; Nagelkerke pseudo-R^2 = 10.6%). Results showed that all other variables being equal, women were more likely than men to be diagnosed with a PD (OR 2.23, 95% CI 1.44 to 3.45, *P* < 0.001), to be older at the time of the first offence against a person (OR 1.05, 95% CI 1.01 to 1.09, *P* = 0.05), and less likely to have a prior criminal conviction (OR 0.46, 95% CI 0.29 to 0.71, *P* = 0.001) (Table 5).

Table 5 Logistic regression predicting gender of not criminally responsible on account of mental disorder (NCRMD)–accused people (men = 0, women = 1; n = 1569)

Covariates	*OR*	*(95% CI)*
Province (Quebec as reference)		
Ontario	1.29	(0.92 to 1.81)
British Columbia	1.04	(0.65 to 1.67)
Aboriginal status	1.62	(0.72 to 3.63)
Age at the index offence	0.99	(0.95 to 1.03)
Diagnosis (nonexclusive)		
Psychosis	1.52	(0.76 to 3.06)
Mood	1.93	(0.93 to 4.00)
Substance	0.71	(0.50 to 1.01)
Personality	2.23	(1.44 to 3.45)[a]
Presence of psychiatric history	1.1	(0.80 to 1.51)
Age at first offence against person	1.05	(1.01 to 1.09)[b]
Presence of criminal history		
NCRMD	0.66	(0.34 to 1.28)
Convictions	0.46	(0.29 to 0.71)[c]
Against person	1.25	(0.70 to 2.24)
Index most severe offence (Others as reference)		
Homicides or attempted	1.37	(0.73 to 2.57)
Assault and sexual assaults	1.10	(0.67 to 1.80)
Other crimes against person	0.98	(0.60 to 1.62)
Property crimes	1.22	(0.66 to 2.26)

–2 LL [log likelihood] = 1207.72; $\chi 2$ = 96.85, df = 17, P < 0.001; Nagelkerke pseudo-R^2 = 10.6%

a P < 0.001; b P < 0.05; c P < 0.01

DISCUSSION

Consistent with gender-informed theories of offending and evidence of female-specific pathways into crime,[1,4,5] we concluded that although men and women found NCRMD present with many of the same characteristics, there are also many differences in their profiles relevant to treatment and management. In particular, our results indicate that women found NCRMD present with significantly fewer criminogenic needs than their male counterparts. Similar to prior research examining women in secure forensic psychiatric services, the results suggest that women in this population may require similarly intensive mental health interventions as men but may be more appropriate for community care once their psychiatric symptoms abate.[19] In particular, compared with men, female NCRMD acquittees could benefit from less intensive and (or) different management strategies regarding criminogenic needs.[28] However, further research is needed to determine the need for internal and perimeter security measures for women found NCRMD, particularly in the presence of PDs.[19,28] For instance, Nicholls et al[10] found that inpatient incidents of aggression and violence were as common among female forensic patients as male patients.

Smith and al[28] similarly concluded that the management problems evident in their sample of female patients may justify a custodial disposition in a secure hospital. That said, it could also be the case that the secure setting exacerbates behavioural disturbances and symptoms among these women (and men, for that matter) who often present with high rates of victimization and trauma, particularly in childhood.[19,29,30]

CHARACTERISTICS OF NCRMD–ACCUSED PEOPLE: CONTRASTING THE PROFILES OF MEN AND WOMEN

SOCIODEMOGRAPHIC CHARACTERISTICS

In many ways, the sociodemographic profiles of the men and women in this large and representative sample of Canadians found NCRMD overlap; with the exception of age, none of the demographic variables distinguished women from men. However, a consideration of variables relevant to psychosocial functioning revealed some important gender differences; for instance, men were significantly more likely than women to be homeless prior to the index offence. Taken together, the results suggest that, contrary to our hypotheses (based largely on correctional research comparing men and women), the women had achieved somewhat greater levels of social integration and higher degrees of daily

functioning than the men (for example, higher rates of marriage and [or] cohabitation, high school completion, and independent living). Late-onset schizophrenia and other psychotic disorders in women may account for the age discrepancy and provide women more time than men to build up protective factors (for example, obtaining an education and establishing a romantic relationship) before becoming ill, thereby reducing their vulnerability to being criminalized.[31,32] That said, these results must be considered cautiously, given we are relying on gross indicators of social integration and daily functioning. Many important variables to draw firm conclusions about illness onset, marginalization, disadvantage, and psychosocial functioning were unavailable in our study (for example, social support and activities of daily living) as a result of our reliance on secondary data; they will be addressed in our ongoing prospective research.[33]

Mental Health Characteristics

We measured multiple indicators of the severity of the sample's mental illness, including variables relevant to the men's and women's mental health histories, their symptoms at the time of the index offence, as well as their diagnoses at the index NCRMD verdict. Although some gender differences were evident, in many respects the variations cannot be easily interpreted (for example, to suggest that women or men suffered from more persistent or more severe mental disorders). With the exception that women were older at the time of their first psychiatric hospitalization, there was no evidence to suggest the men and women in our sample had highly divergent mental health histories.

A consideration of the NCRMD–accused person's mental state at the time of the index offence is particularly relevant, given that should be precisely what dictates who will or will not be found NCRMD (that is, the capacity of the accused to form *mens rea*). Despite considerable debate in the literature regarding the extent to which women are given leniency or are treated more harshly when in conflict with the law, and given the letter of the law is very clear on the matter, we anticipated that similarly severe psychotic symptoms would be required to receive an NCRMD finding regardless of the gender of the accused person. The results largely matched our expectations; there was no gender difference in the rate of delusions, hallucinations, or a combined category of psychotic symptoms by gender of the accused. Moreover, although some prominent differences were evident, they are not relevant to the legislation and an NCRMD finding, per se. Specifically, consistent with a large substance abuse literature,[34] the men had significantly higher rates of substance use at the time of the offence. The women had higher rates of suicidality (ideation and attempts) than the men.[35,36] Also typical of the extant literature,[24] women were also more likely to be diagnosed with mood spectrum disorders, and men were more likely to have SUD diagnoses recorded on file.

Criminological Characteristics

We found no evidence that the NCRMD–accused women in our sample perpetrated less serious index offences than the men. In fact, the women had a nearly identical rate of offences against a person when compared with the men, and perpetrated significantly more offences that did or could result in death.[37,38] Also of note, offences such as prostitution, drug possession and (or) trafficking, crime categories that often are highly represented among women offenders, in general,[27] were negligible in our sample. The marked gender disparities in the participants' criminal histories mirrors what we see in the general public and the general offender populations,[1,27] yet the nature of the index offence is consistent with research on offending[12,38] and aggression and (or) violence 10 among women with mental disorders. In sum, the results suggest that despite female NCRMD acquitees coming into forensic psychiatric services for offences that parallel their male counterparts (in terms of severity), they have substantially fewer prior criminal offences. Consistent with the extant

literature,[39] this would suggest that provided their psychiatric symptoms are resolved, women found NCRMD likely pose significantly less threat of recidivism than men.

Clinical Implications

The mandate of the provincial RBs is to protect the public while safeguarding the needs of people found NCRMD (Criminal Code, Section 672.54).[25] Our pursuit of this research reflects our perception that, to the extent that dangerousness, mental condition, and other needs of the accused vary by gender, these issues should be considered in treatment planning. As would be expected, our findings document substantial overlap in the profiles of Canadian men and women found NCRMD, yet several prominent features distinguish the 2 groups. These results have direct implications for treatment planning and rehabilitation prospects with women, as a reflection of their higher pre–NCRMD functioning overall and evidence to suggest they are less likely than the men to be entrenched in a criminal lifestyle. Clinicians should be aware of the potential for gender differences in their management and treatment of forensic patients, but ultimately, individualized assessment should be the standard of practice, regardless of gender.[40]

The coexistence of multiple pathologies in this complex population is apt to hinder optimal treatment and potential resolution of the individual's problems.[41,42] For instance, patients with multi-morbidities and treatment-resistant disorders should be singled out for intensive case management early on, but particularly on return to the community.[43] However, we remain mindful that simply because a diagnosis is not recorded on the files does not necessarily indicate that relevant characteristics are not population. Two specific categories of diagnoses appeared conspicuously absent, PDs and PTSD.

The low base rates of PDs recorded on file may suggest that insufficient attention is being drawn to the challenges inherent in treating that important subgroup of people who frequently have a poor prognosis owing to the challenges in attracting them to treatment and keeping them engaged (for example, low insight, poor attendance, high dropout rates).[44] Given the primary objective of the initial expert reports in NCRMD cases is foremost on the extent to which Axis I disorders and psychotic symptoms were evident at the time of the offence, this may not be surprising. Nonetheless, the scope of the diagnostic inquiry does not appear to expand substantially during the course of the time the patients are under the purview of the RBs, indicating that potentially important insights into treatment and management may be overlooked. The low base rates overall, and the disparity in rates of PDs among men and women in secure forensic care specifically, could also reflect the preference to assign men with PDs to the criminal justice system and women to the mental health or forensic system.[19,28]

Our data also point to a lack of attention to trauma and victimization among forensic patients as just 11 cases mentioned PTSD (4 women and 7 men). Trauma is a topic of considerable relevance to any mental health or criminal justice population, and potentially of particular relevance to women in forensic settings. Although adverse events are relatively ubiquitous in the general population,[45] severe, chronic, and repeated victimization and violence resulting in complex trauma are much more widespread within populations that come into conflict with the law and live with mental disorders (for example, foster care placements, experiences of neglect, and physical and sexual abuse that are often not single events but rather repeated pervasive processes).[9,46–48] These experiences have intermingled and prolonged detrimental effects, including exacerbating mental illness, personality changes, and increased vulnerability to repeated victimization.[49–51] Experts[46,48] assert that unlike single traumatic events, the conditions found among people who suffer repeated neglect, violence, and abandonment are reflected in wide-ranging neurobiological and behavioural deficits. An appreciation of the complexity and the range of the implications of dysfunctional and traumatic histories is an essential component of a forensic service.

Ensuring that people are assessed thoroughly when they come under the purview of the RB could aid substantially in identifying appropriate treatment and management options.

Strengths and Limitations

The capacity to examine female forensic psychiatric patients in prior research has been seriously thwarted by small sample sizes, underscoring the necessity of subsequent research with this unique population. The NTP provides one of the largest samples of female forensic psychiatric patients ever available for study,[19] and is the first national examination of the characteristics and longitudinal processing of people found NCRMD in Canada since Criminal Code changes in 1992 with a representative sampling design. Having 280 women in this sample allowed us to speak to low base rate behaviours (for example, suicidality at the time of the offence, sexual offences) in a population for whom research to advance evidence-informed practice is lacking. Despite the study's strengths there are several limitations that suggest caution is warranted in the interpretation and application of the results.

The most important limitation of the study is that we relied on archival records and official data sources, thereby limiting our ability to speak to certain issues (for example, protective factors and [or] a patient's strengths). For instance, in the absence of interviews we cannot know for certain if living independently was actually evidence of strengths and capacities of the women in the sample, or if it might have reflected a lack of support and supervision and ultimately played a role in their deteriorating mental health, culminating in the index offences. The reliance on secondary data also has implications to the extent there is consistency in documentation between provinces, clinicians, and RBs (for example, suicidality at the time of the offence) and the amount of inquiry into symptoms and diagnostic categories. Of specific relevance to studying gender differences and similarities, research suggests that clinicians attend to different factors when working with male and female patients.[52] Commentators also note that clinicians feel a greater need to explain female deviancy than male deviancy. As such, future research using more rigorous and resource intensive study designs is urgently required. For instance, prospective studies examining the extent to which there are truly higher rates of PDs in NCRMD–accused women, compared with NCRMD–accused men, and the extent to which victimization and trauma is uniquely relevant to this population is needed. The extent to which biases and heuristics among clinicians affected our results in general, and regarding gender, specifically, is unknown.

Conclusions

Our study clearly points to the need to continue to explore NCRMD–accused people's clinical and criminogenic needs in more detail, preferably using longitudinal designs. The results reflect the essential nature of individualized assessment and treatment. To clarify, although there are evidently important differences between the average man and the average woman found NCRMD, there is also substantial within-gender variability. For instance, although women are less likely to have a criminal history on average, there will also be men who are found NCRMD for whom there is little evidence of any prior involvement in antisocial activities. Clinicians should conduct individualized assessments and avoid being biased at the outset to presume certain characteristics about a client based on gender alone.

As such, although the results offer preliminary support for testing gender-informed approaches to risk assessment and gender-responsive treatment in forensic psychiatric settings, the findings are not necessarily inconsistent with established approaches; for instance, gender is a well-recognized being imbedded in a patient's treatment and (or) discharge plan, thus making prospective studies a priority. Given the potential for gender biases in diagnostic determinations, this will be a particularly interesting avenue of research for

informing discussion about gender needs in this responsivity factor in the Risk–Need–Responsivity model.[40] Despite women representing a minority of forensic patients, they are often high intensity users of services and are more likely to offend within private relationships (for example, against children), making their care a priority.

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