The 2015 National Canadian Homeless Youth Survey: Mental Health and Addiction Findings

Sans domicile: un sondage national sur l'itinérance chez les jeunes 2015: résultats de santé mentale et de toxicomanie

Sean A. Kidd, PhD[1], Stephen Gaetz, PhD[2], and Bill O'Grady, PhD[3]

Abstract

Objective: This study was designed to provide a representative description of the mental health of youth accessing homelessness services in Canada. It is the most extensive survey in this area to date and is intended to inform the development of mental health and addiction service and policy for this marginalized population.

Methods: This study reports mental health–related data from the 2015 "Leaving Home" national youth homelessness survey, which was administered through 57 agencies serving homeless youth in 42 communities across the country. This self-reported, point-in-time survey assessed a broad range of demographic information, pre-homelessness and homelessness variables, and mental health indicators.

Results: Survey data were obtained from 1103 youth accessing Canadian homelessness services in the Nunavut territory and all Canadian provinces except for Prince Edward Island. Forty-two per cent of participants reported 1 or more suicide attempts, 85.4% fell in a high range of psychological distress, and key indicators of risk included an earlier age of the first episode of homelessness, female gender, and identifying as a sexual and/or gender minority (lesbian, gay, bisexual, transgender, queer, and 2 spirit [LGBTQ2S]).

Conclusions: This study provides clear and compelling evidence of a need for mental health support for these youth, particularly LGBTQ2S youth and female youth. The mental health concerns observed here, however, must be considered in the light of the tremendous adversity in all social determinants faced by these youth, with population-level interventions best leveraged in prevention and rapid response.

Abrégé

Objectif : Cette étude visait à offrir une description représentative de la santé mentale des jeunes utilisant les services aux sans-abri au Canada. Il s'agit de l'enquête la plus poussée dans ce domaine jusqu'ici, et elle tend à informer l'élaboration des services et des politiques de santé mentale et de toxicomanie pour cette population marginalisée.

Méthodes : Cette étude présente les données liées à la santé mentale de Sans domicile: un sondage national sur l'itinérance chez les jeunes de 2015 qui a été administré par 57 organismes offrant des services aux jeunes itinérants de 42 collectivités du pays. Ce sondage auto-déclaré, ponctuel évaluait une vaste gamme de données démographiques, des variables avant et après l'itinérance, ainsi que des indicateurs de la santé mentale.

[1] Centre for Addiction and Mental Health, Department of Psychiatry, University of Toronto, Toronto, Ontario
[2] Faculty of Education, York University, Toronto, Ontario
[3] Department of Sociology and Anthropology, University of Guelph, Guelph, Ontario

Corresponding Author:
Sean A. Kidd, PhD, Centre for Addiction and Mental Health, Department of Psychiatry, University of Toronto, 1001 Queen Street West, Unit 2-1, #161, Toronto, ON M6J 1H1, Canada.
Email: sean_kidd@camh.net

Résultats : Les données du sondage ont été obtenues auprès de 1 103 jeunes utilisant les services canadiens aux sans-abri dans le territoire du Nunavut et dans toutes les provinces canadiennes sauf l'Île-du-Prince-Édouard. Quarante-deux pour cent des participants ont déclaré une ou plusieurs tentatives de suicide, 85,4% se classaient dans une échelle élevée de détresse psychologique, et les indicateurs de risque clés étaient notamment l'âge précoce du premier épisode d'itinérance, le sexe féminin, et le fait de s'identifier à une minorité sexuelle ou de genre (LGBTQ2S).

Conclusions : Cette étude présente des preuves nettes et convaincantes du besoin de soutiens de santé mentale pour ces jeunes, en particulier pour les jeunes hommes et femmes de la communauté LGBTQ2S. Les problèmes de santé mentale observés ici, cependant, doivent être considérés à la lumière de l'adversité extraordinaire de tous les déterminants sociaux à laquelle font face ces jeunes, et les interventions au niveau de la population devraient miser sur la prévention et la réponse rapide.

Keywords

homeless youth, street youth, homeless adolescent, mental illness, addictions, mental health, Canada, national

Service and system design in the homeless youth sector are routinely hampered by a lack of representative information, and providers struggle to meet the complex mental health needs of this population. A clear understanding of population size and composition is lacking. Counts of homeless youth that must be considered approximate due to methodological issues typically assign an annual prevalence of 25 000 to 35 000 in Canada.[1-3] Canadian data, which are largely consistent with those of other high-income countries, suggest that between 60% to 70% of young people report neglect, physical violence, and/or sexual violence prior to homelessness.[2,4-7] Also prevalent are reports of pre-homelessness difficulties in school, family discord, mental health challenges, criminal justice, and child protection involvement.[8-10] Indigenous youth, sexual, and gender minorities are considered particularly high-risk subgroups due to experiences of discrimination and bullying.[11-13]

Once homeless, victimization continues, as do mental health problems and addictions,[14,15] attended by rates of mortality that are 11 to 40 times that of the general adolescent population, with suicide and drug overdose being leading causes.[16,17] Pathways out of homelessness are challenged. Initial successes are commonly attended by cycles back into homelessness and stagnation in mental health and major life domains.[18] This difficulty in housing transition has been found in both housing first and non–model housing interventions.[3,19] A policy/system analysis of the problem of youth homelessness has received less attention,[20] which is particularly problematic as such systemic social problems require system-level responses.[2] A clear challenge to any such effort is access to representative sources of information. Data collected to date are almost uniformly from small local samples. The present article reports mental health findings from a recent national survey of youth accessing homelessness services in Canada. While specific variable weightings were examined in an exploratory manner, it was hypothesized that established sources of adversity (e.g., abuse and neglect in childhood, victimization on

the streets) would be associated with a greater challenge, as would identities that face greater stigmatization (e.g., sexual and gender minority, Indigenous).

Methods

Design and Analysis Strategy

This study reports mental health–related data from the 2015 "Leaving Home" national youth homelessness survey that was administered through 57 Canadian agencies serving homeless youth (e.g., emergency shelters, day programs) in 42 communities. This self-reported, point-in-time survey assessed demographic information along with pre-homelessness and homelessness variables. In the present study, following a descriptive analysis of key demographic and scale findings, a 2-step analytic strategy was employed to consider mental health variable relationships. In step 1, dependent variables were quality of life (QOL), psychiatric symptoms, substance abuse, suicide attempt history, and resilience. Independent variables were organized into groupings of age/time, sexual orientation and gender, racial and ethnic minority status, pre-homelessness adversity, homelessness adversity, and social resources. Associations between these domains were analyzed using the Pearson correlation, independent-samples t test, and chi-square analysis. Associations and comparisons with significance less than $P = 0.05$ are reported, although associations greater than $P = 0.01$ likely need to be treated cautiously, given the large sample size and multiple comparisons. In step 2, logistic regression was employed to examine the weightings and interactions between the independent variables noted above, with the dependent variable being membership in high and (relatively) low distress groups. K-means cluster analysis was employed to develop these 2 groups from the total sample based on the association with QOL, psychiatric symptoms, substance abuse, and resilience. Suicide attempts were omitted in the cluster generation, as proximity to the current state could not be ascertained.

Table 1. Participant demographics by region.

Variable	British Columbia	Prairie Provinces	Ontario	Quebec	Maritime Provinces	Total[a]
Participants, n	238	192	482	60	129	1103
Female, %	26.1	35.9	39.8	35.0	44.4	34.3
Age, mean (SD), y	20.20 (2.24)	19.21 (2.79)	19.54 (2.63)	20.71 (2.60)	20.63 (2.79)	19.81 (2.65)
LGBTQ2S, %	29.0	25.5	26.8	36.2	33.3	27.2
Indigenous, %	55.9	50.0	20.7	6.7	16.4	27.6
Racialized non-Indigenous, %	23.5	28.6	35.0	20.7	15.3	27.4
Age of first homeless episode, mean (SD), y	16.20 (2.52)	15.39 (2.17)	16.03 (2.53)	16.57 (2.55)	16.03 (2.74)	15.96 (2.52)
Time since first homeless episode, mean (SD), y	4.01 (2.99)	3.87 (2.81)	3.50 (3.04)	4.09 (2.78)	4.56 (3.06)	3.86 (3.01)

LGBTQ2S = lesbian, gay, bisexual, transgender, queer, and 2 spirit.
[a]$n = 2$ not included.
With $n = 2$ and the single site responding, there could be an unblinding of phi info.

Recruitment and Data Collection

Survey packages were distributed to homeless youth–serving organizations via networks connected with the Canadian Observatory on Homelessness and through local snowball sampling at the agency level. Surveys were administered by organization staff on their premises by approaching clients and providing a brief explanation about the survey. Surveys were then provided to youth to complete with pen and paper independently, who sealed their completed survey in an envelope that was given back to agency staff. Survey collection occurred over a 4-week period between October and November 2015. All participants received Can$10 for their participation, and the study was approved by York University's Human Participants Review Committee.

Measures

Due to respondents being prone to survey fatigue and challenges that attend self-administration without investigators on site to provide explanations or answer questions, key domains were measured with a minimum of items. For measures composed of subsets of items derived from full measures, a systematic effort was undertaken including 1) choosing brief measures to start with that were psychometrically valid with similar populations, 2) identifying items through item-factor relationships in psychometric analyses where possible, 3) investigator consensus regarding topic relevance, and 4) feedback from previously homeless youth on draft versions to highlight items difficult to understand or seen as repetitive. Basic demographic information was collected in areas of age, ethnicity, race, gender, sexual identity, and age of first homeless episode, with binary responses obtained for the occurrence of physical and sexual violence in pre-street and street contexts. Binary responses were obtained with respect to a history of 1 or more drug overdoses requiring hospitalization and a history of 1 or more suicide attempts.

To assess mental health symptoms, a 6-item internalizing scale from the GAIN Short Screener (ver. 3.0.1)[21] was administered, which employs a 5-point Likert scale (never to past month), has established psychometrics with adolescent populations,[22] and in the present study demonstrated internal consistency at alpha = .79. To assess subjective QOL, 7 items from the well-validated WHOQOL-BREF[23] were administered. The 7 items were chosen with attention given to covering general life satisfaction and items from physical health, environment, and psychological domains (social supports assessed elsewhere). Items were answered on a 5-point scale with reliability at alpha = .86. Substance abuse was assessed using 3 items derived from the GAIN Short Screener,[21] tapping substance use with activities of daily life, relationships, and withdrawal symptoms. These items employed a 5-point Likert scale from never to 1 or more years ago and demonstrated alpha = .82. Resilience was assessed using the 14-item Resilience Scale,[24] which has established psychometrics and is answered on a 5-point scale of strongly disagree to strongly agree (alpha = .90). Social support from friends was assessed with 9 items from the Hemingway Measure of Adolescent Connectedness,[25] which employs a 5-point Likert scale of strongly disagree to strongly agree (alpha = .95). Three additional general support items were added to tap domains relevant to this population, using the same scale and referring to people who can be counted on in an emergency, for emotional support, and who check in on them.

Results

Participants

A total of 1161 youth completed the survey, and after cleaning, 1103 were retained (cases with key demographic data and measures omitted were excluded). Data were collected from the Nunavut territory and all provinces except for Prince Edward Island (Table 1). The largest amounts of data were collected from Ontario ($n = 482$; 44%), British Columbia ($n = 238$; 22%), and Alberta ($n = 154$; 14%) and the least from Nunavut ($n = 2$; 0.2%) and Manitoba ($n = 16$; 1.4%). Data were primarily gathered in large urban centres such as Toronto ($n = 193$; 18%), Vancouver ($n = 167$; 15%), Edmonton ($n = 82$; 7.4%), Ottawa ($n = 67$; 6.1%), and St. John's ($n = 67$; 6.1%). The complexity regarding sexual, gender, and racialized identities in this diverse group was

Table 2. Simple association summary.

Youth Variable	Quality of Life	Mental Illness Symptoms	Suicide Attempt	Substance Abuse	Resilience
Age, y			3.01/0.003		0.08[a]/0.02
Age of first homeless episode, y	0.10[a]/0.002	−0.12[a]/<0.001	−4.49/<0.001	−3.07/0.002	
Time since first homeless episode, y	−0.09[a]/0.004			−4.34/0.001	
Female cisgender		5.29/<0.001	31.83[b]/<0.001		
LGBTQ2S	−4.74/<0.001	7.24/<0.001	73.66[b]/<0.001	19.9b[b]/<0.001	
Racialized non-Indigenous		2.79/0.005	−7.62[b]/0.006		
Indigenous			11.51[b]/0.003	12.39[b]/0.002	
Child protection history	−2.38/0.017	3.14/0.002	32.46[b]/<0.001		
Pre-street physical abuse	7.34/<0.001	6.59/<0.001	44.56[b]/<0.001		−3.82/<0.001
Pre-street sexual abuse	5.52/<0.001	5.78/<0.001	50.24[b]/<0.001	5.00[b]/0.025	−3.24/0.001
Pre-street neglect	−0.29[a]/<0.001	0.22[a]/<0.001	7.20/<0.001		−0.09[a]/0.01
Physical violence on streets	−7.00/<0.001	5.99/<0.001	21.85[b]/<0.001	27.12[b]/<0.001	−3.18/0.001
Sexual violence on streets	−5.62/<0.001	6.05/<0.001	32.14[b]/<0.001	13.66[b]/<0.001	−3.78/<0.001
Support from family	6.84/<0.001	−2.10/0.036	−4.50/0.034		3.42/<0.001
Support from peers	0.29[a]/<0.001	−0.09[a]/0.009			0.26[a]/<0.001
Help in emergency	0.37[a]/<0.001	−0.11[a]/0.001	−2.19/0.029	−2.17/0.031	0.26[a]/<0.001
Emotional support	0.34[a]/<0.001	−0.09[a]/0.005			0.25[a]/<0.001
Person who checks in	0.34[a]/<0.001	−0.11[a]/0.001		−1.99/0.047	0.22[a]/<0.001
High distress group	−21.79/<0.001	26.87/<0.001	48.21[b]/<0.001	205.25[b]/<0.001	−14.41/<0.001

Data are shown for associations at $P < 0.05$. Format is t statistic/significance level. LGBTQ2S = lesbian, gay, bisexual, transgender, queer, and 2 spirit.
[a]Pearson correlation coefficient.
[b]Chi-square statistic.

readily apparent in multi-item endorsements. Recognizing the limitations of attempting to capture this information categorically, 620 participants (56%) were cisgender male, and 390 were cisgender female, with 752 (68%) reporting heterosexual and cisgender identities and 310 (28%) reporting sexual and gender minority identities. There were 314 participants (29%) who identified as Indigenous; 676 (61%) identified as white, along with other prominent racialized identities that include black ($n = 142$; 13%) and Latin American ($n = 38$; 3.5%). The mean age of participants was 19.81 years (SD 2.65; range 12-27), with 15.96 years (SD 2.52) cited as the mean age of the first homeless episode and 3.86 years (SD 3.01) as the mean time between age of first homeless episode and current age. The mean number of reported episodes of homelessness in the past 3 years was 2.59 (SD 4.32), and the most commonly reported places of residence in the month prior included shelters ($n = 234$; 21%), another individual's home ($n = 212$; 19%), their "own place" (referring to an independent housing arrangement) ($n = 183$; 17%), and transitional housing ($n = 157$; 14%).

Descriptives

The mean QOL fell in the middle of the 5-point scale (3.14/5; SD 0.86), with item means ranging from 2.91 (satisfaction with self) to 3.45 (satisfaction with access to health services). On the GAIN Short Screener, 85.4% ($n = 942$) of respondents fell in the high symptom/distress category, with a mean of

2.78 (SD 1.09) on the 0-to-4 scale and with the psychosis item having the lowest endorsement at 1.53 (SD 1.84). Also, 42% of participants reported at least 1 suicide attempt, and 35.2% reported having at least 1 drug overdose requiring hospitalization. On the 14-item Resilience Scale, the mean score of 3.47 (SD 0.81) falls between the low (3.43) and moderately low to moderate resilience cutoffs (3.57).[26] See Table 2 for a summary of findings associated with these measures.

Simple Associations

Age/time. Age was not associated with QOL and mental health symptoms, although younger participants were more likely to report a suicide attempt ($t[931] = 3.01$, $P = 0.003$), and older youth reported greater resilience ($R = 0.08$, $P = 0.02$). Stronger associations were observed considering age of the first homeless episode. These included a later age of the first episode associated with better QOL ($R = 0.10$, $P = 0.002$), fewer symptoms ($R = −0.12$, $P < 0.001$), less likelihood of reporting a suicide attempt ($t[898] = 4.49$, $P < 0.001$), and less likelihood of substance abuse ($t[704] = 3.07$, $P = 0.002$). Finally, the amount of time between the first episode of homelessness and present age emerged. These included a greater time associated with lower QOL ($R = −0.09$, $P = 0.004$) and less substance abuse ($t[701] = 4.34$, $P < 0.001$).

Sexual orientation and gender. Comparing cisgender males and females, no global QOL differences were observed,

although item-level analysis suggested females having lower satisfaction in health (t[986] = 3.03, P = 0.003), self (t[985] = 2.73, P = 0.006), and energy (t[984] = 5.29, P < 0.001). Females also reported poorer mental health (t[898] = 5.29, P < 0.001) and a suicide attempt rate of 59% as compared with 39% in cisgender males (χ^2[1, N = 888] = 31.83, P < 0.001). Lesbian, gay, bisexual, transgender, queer, and 2 spirit ("2 spirit" refers to an individual who identifies with both masculine and feminine spirits and is a term used by some Indigenous individuals to describe gender, sexual, and/ or spiritual identities) (LGBTQ2S) youth reported significantly lower QOL (t[1031] = 4.74, P < 0.001), poorer mental health (t[943] = 7.24, P < 0.001), a 70% suicide attempt rate as compared with 39% for straight and cisgender participants (χ^2[1, N = 930] = 73.66, P < 0.001), and higher rates of substance abuse (66.5% compared with 41.8%; χ^2[1, N = 731] = 19.93, P < 0.001).

Minority status. Racialized, non-Indigenous youth reported higher symptoms (t[942] = 2.79, P = 0.005) but a lower suicide attempt rate (41% compared with 51%; χ^2[1, N = 920] = 7.62, P = 0.006) than Indigenous and white youth. Indigenous youth reported no difference in QOL and symptoms compared with other youth, although they did report a higher suicide attempt rate (54% compared with 45%; χ^2[1, N = 960] = 11.51, P = 0.003) and greater substance abuse (66% compared with 49.9%; χ^2[1, N = 753] = 12.39, P = 0.002).

Pre-homelessness adversity. Youth with a history of child protection involvement had poorer QOL (t[964] = 2.38, P = 0.017), higher symptoms (t[888] = 3.14, P = 0.002), and a higher suicide attempt rate (56% compared with 36%; χ^2[1, N = 916] = 32.46, P < 0.001). Lower QOL was associated with neglect (R = –0.288, P < 0.001), physical abuse (t[917] = 7.34, P < 0.001), and sexual abuse (t[912] = 5.52, P < 0.001). Higher symptom rates were likewise associated with neglect (R = 0.22, P < 0.001), physical abuse (t[835] = 6.59, P < 0.001), and sexual abuse (t[851] = 5.78, P < 0.001). Neglect was associated with a greater likelihood of reporting a suicide attempt (t[936] = 7.203, P < 0.001), as was the case for those who reported physical abuse (60% compared with 36%; χ^2[1, N = 825] = 44.56, P < 0.001) and sexual abuse (74% compared with 42%; χ^2[1, N = 843] = 50.24, P < 0.001). For substance abuse, an association was only noted for sexual abuse (64% compared with 52%; χ^2[1, N = 638] = 5.00, P = 0.025). A history of neglect was associated with lower resilience (R = –0.085, P = 0.010), physical abuse (t[816] = 3.82, P < 0.001), and sexual abuse (t[836] = 3.24, P = 0.001).

Street adversity. Physical violence on the streets was associated with poorer QOL (t[906] = 7.00, P < 0.001), as was sexual violence (t[906] = 5.62, P < 0.001). The same associations were observed for symptoms (physical violence: t(846) = 5.99, P < 0.001; sexual violence: t(863) = 6.05, P < 0.001), suicide attempts (physical violence: 62%

compared with 43%; χ^2[1, N = 837] = 21.85, P < 0.001; sexual violence: 70% compared with 43%; χ^2[1, N = 857] = 32.14, P < 0.001), and substance abuse (physical violence: 79% compared with 49%; χ^2[1, N = 649] = 27.12, P < 0.001; sexual violence: 73% compared with 50%; χ^2[1, N = 655] = 13.66, P < 0.001). Physical violence on the streets was associated with lower resilience (t[826] = 3.18, P = 0.002), as was sexual violence (t[850] = 3.78, P < 0.001).

Social connections. Being in contact with at least one family member was associated with better QOL (t[1048] = 6.84, P < 0.001), lower symptoms (t[958] = 2.10, P = 0.036), a lower suicide attempt rate (46% compared with 54%; χ^2[1, N = 945] = 4.50, P = 0.034), and greater resilience (t[933] = 3.42, P < 0.001). A positive perception about the support of friends was associated with better QOL (R = 0.29, P < 0.001) and greater resilience (R = 0.26, P < 0.001) and had a modest relationship with fewer symptoms (R = –0.09, P = 0.009). More broadly, having someone who could help in an emergency (R = 0.37), who provides emotional support (R = 0.34), and who checks in (R = 0.34) were all associated with better QOL at P < 0.001. More modest associations were observed for symptoms (emergency: R = –0.11, P = 0.001; emotional support: R = –0.09, P = 0.005; checking in: R = –0.11, P = 0.001). Only having someone who could help in an emergency was associated with a lower suicide attempt rate (t[939] = 2.19, P = 0.029), and less substance abuse had 2 associations (emergency: t(732) = 2.17, P = 0.031; checking in: t(728) = 1.99, P = 0.047). In the area of resilience, all modes of support were associated at P < 0.001 (emergency: R = 0.26; emotional support: R = 0.25; checking in: R = 0.22).

High and Low Distress Group Associations.

To identify and group participants as a function of levels of distress (creating dichotomous variables of high and low distress group membership), a K-means cluster analysis approach was used. Variables used to create the clusters were psychiatric symptoms, substance abuse, QOL, and resilience as key mental health/wellness state variables. A 4-cluster solution was employed to generate groups at opposing distribution ends, and convergence was achieved within 10 iterations. Accordingly, groups 1 and 2 emerged as high and low (although "low" here is in reference to this population) distress, with the greatest distance between cluster centres reflecting high and low symptoms (mean cluster centres 3.56 and 1.34, respectively), high and low substance abuse (4.56 and 1.39, respectively), low and high QOL (2.36 and 3.86, respectively), and low and high resilience (2.85 and 3.95, respectively). Sample sizes within clusters were n = 144 for high distress and n = 191 for low distress, with group membership forming the dependent variable for block-wise logistic regression.

Examining group membership as a function of key demographics, current age, gender (cisgender male/female), and Indigenous status were not found to have significant

Table 3. Logistic regression estimating associations with distress group membership.

	Step 1: Pre-Homelessness			Step 2: Homelessness			Step 3: Protective Factors		
	B	SE	OR	B	SE	OR	B	SE	OR
Block 1 (pre-homelessness)									
Child protection	−0.52	0.34	0.60	−0.57	0.36	0.57	−0.53	0.38	0.59
Pre-street physical violence	0.16	0.36	1.17	0.07	0.39	1.01	0.06	0.42	1.01
Pre-street sexual violence	1.05	0.43	2.86[a]	0.41	0.50	1.51	0.64	0.55	1.38
Pre-street neglect	0.20	0.18	1.22	0.09	0.19	1.10	−0.05	0.20	0.95
Age of first homelessness, y	−0.26	0.07	0.77[b]	−0.22	0.09	0.80[a]	−0.26	0.10	0.77[c]
Block 2 (homelessness)									
Time since first homeless episode, y				0.03	0.07	1.03	−0.04	0.07	0.96
Physical violence while homeless				1.19	0.39	3.29[c]	1.28	0.42	3.60[c]
Sexual violence while homeless				1.34	0.65	3.83[a]	1.09	0.69	2.98
Block 3 (support)									
Friend support							−0.32	0.19	0.72
Family support							−0.57	0.44	0.57
Help in emergencies							−0.19	0.17	0.83
Emotional support							−0.47	0.21	0.95
Person who checks in							−0.06	0.21	0.95
Constant	3.31	1.30		2.57	1.77		6.47	2.17	
Model χ^2	31.50[b]			51.71[b]			69.68[b]		

[a] $P < 0.05$.
[b] $P < 0.001$.
[c] $P < 0.01$.

associations. However, LGBTQ2S individuals were overrepresented in the high distress group ($\chi^2 = 23.90$ [1, $N = 325$], $P < 0.001$), while racialized (non-Indigenous) youth were underrepresented in the high distress group ($\chi^2 = 7.49$ [1, $N = 327$], $P = 0.006$).

Logistic regression was used to probe associations with distress group membership (Table 3). Three blocks of variables were entered: step 1 of pre-homelessness variables (child protection, sexual abuse, physical abuse, neglect, age of first episode of homelessness), step 2 of homelessness considerations (time since first homeless episode, physical and sexual violence experienced while homeless), and step 3 of protective factors (support of friends, contact with family, and people who provide emotional, emergency, and check-in support). At block 1 (pre-homelessness variables), the model was significant (Nagelkerke $R^2 = 0.19$, $\chi^2 = 31.50$, $P < 0.001$). Prediction success was 84.3% for low distress and 47.1% for high distress. The Wald criterion indicated that age of the first homeless episode made a significant contribution ($P < 0.001$), as did sexual abuse ($P < 0.001$) but not neglect. For age of the first homeless episode, the odds ratio (OR) of 0.77 indicates that for every year of age older at the first time, homeless youth were 23% less likely to be in the high distress group. Youth sexually abused prior to homelessness were 2.9 times more likely to be in the high distress group. Adding homelessness variables at step 2 strengthened the model (Nagelkerke $R^2 = 0.29$) with significance ($\chi^2 = 51.71$, $P < 0.001$). Prediction success was 87.4% for low distress and 51.8% for high distress. The Wald criterion

indicated that age of the first homeless episode remained significant and prior sexual abuse became insignificant, with both physical violence ($P = 0.003$; OR 3.29) and sexual violence ($P = 0.037$; OR 3.82) on the streets greatly increasing the likelihood of being in the high distress group. Adding social supports strengthened the model (Nagelkerke $R^2 = 0.38$) with significance ($\chi^2 = 69.68$, $P < 0.001$). Prediction success was 86.6% for low distress and 56.5% for high distress. The Wald criterion, however, suggested relatively modest associations between social support and group membership. Age of the first homeless episode and physical violence on the streets remained associated with group membership in the full model with a trend relationship for sexual violence on the streets.

Discussion

This article describes a cross-sectional analysis of mental health information gathered in the largest survey to date of Canadian youth accessing homelessness services and is among the largest of such studies internationally. The size of the survey allows for a more representative consideration of the national landscape for these marginalized youth, with a good representation of minority subpopulations. At a general level, this is a high-risk population in marked distress. This finding is evident across a range of smaller previous studies and across the metrics reported here. As such, the findings of the present study support the generalizability of many previous smaller studies. As found previously,[27] a low

mean psychological resilience level was observed. This coincides with 85.4% falling in a high psychological distress range, a rate that would reflect, in a general population, adolescents falling between outpatient and inpatient psychiatric care levels of service need. With respect to youth characteristics, particularly striking was the very strong relationship between the risk across all domains measured and the endorsement of LGBTQ2S identities, a finding that reinforces those noted in smaller local samples.[12,13] Further, there were indications that female youth are struggling to a greater extent than males with physical and mental health challenges and are at a greater risk of suicide attempts. While an association between suicide attempts and gender is commonly found,[28] the observation of poorer perceived physical health has received minimal attention in the literature.

Findings with respect to race and ethnicity were mixed. For example, racialized, non-Indigenous youth reported lower suicide attempt rates and, as with Indigenous youth, reported greater challenges in some areas and no difference from nonminority participants in others. While the processes and implications that attend these findings require further study, these initial observations afford a comparative analysis that has not been possible to date due to the dearth of representative data. Such findings are particularly salient for Indigenous youth, who are consistently overrepresented in Canadian homeless populations (e.g., overrepresented among homeless youth at 15 times what would be expected in proportion to general populations in Ottawa and Vancouver) and for whom pathways to homelessness are often different geographically and in their determinants (e.g., greater poverty, intergenerational trauma).[29]

Consistent with the hypotheses, it was clear that pre-homelessness and homelessness exposure to violence and adversity have deleterious implications for mental health and risk. Becoming homeless at a younger age, with implications for the severity of pre-street adversity and particularly exposure to violence on the streets, had a clear association for youth experiencing the greatest degree of risk and distress. This specific observation has not before been highlighted so directly, and younger age of the first homeless episode may prove to be an important piece of information in screening for risk. In practice, however, age of the first homeless episode may be difficult to use predictively for the youngest and most at risk among this population, as youth need to be 16 or more years of age (or state as much) to access services in this sector.

What this cross-sectional analysis cannot unpack are the previously observed trajectories of victimization exposure-risk relationships that are likely present.[30] There was, however, an indication that exposure to violence while homeless is more important to high distress group membership than pre-street adversity. This observation aligns with other work that has described the more proximal relationship of street violence exposure to current distress levels.[31] Finally, while social supports from friends and family and around key needs likely ameliorate distress for the group as a whole, such support likely minimally addresses the needs of those in the highest distress group. The complexity that attends associations between social supports and mental health for this population has been observed previously.[32]

This study had a number of limitations. These included a cross-sectional design, the need to use abbreviated measures due to survey fatigue in this population in a manner that likely affected the psychometric properties of the metrics used, and questions of participant representativeness given the administration of surveys in agencies by agency staff. The degree of national representation was also hampered by a response rate that was not balanced to the extent that every province and territory was represented equally and/or in proportion to its general population. Additionally, the cyclical and poorly defined nature of homelessness and street involvement among this population makes a highly detailed characterization difficult, particularly when relying on retrospective self-reports. As such, proxy indicators such as participants' presence in organizations serving homeless youth and age of the first reported homeless episode must be used. Lastly, youth who do not or seldom access services are likely underrepresented in these findings.

From an intervention perspective, this study provides clear and compelling evidence of a need for mental health support for these youth. The mental health concerns observed here, however, must be considered in the light of the tremendous adversity in all social determinants, with population-level interventions best leveraged in prevention and rapid response.[20] This work reinforces major national initiatives that are currently underway such as implementing the Housing First model.[33,34]

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