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RESEARCH ARTICLE

Physical and Mental Health Issues among Homeless Youth in British Columbia, Canada: Are they Different from Older Homeless Adults?

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Abstract

Objectives: Youth homelessness is on the rise in North America, yet this vulnerable population is rarely studied and compared with adults. This paper aimed to study the homeless youth and identify specific vulnerabilities, which rendered them different from the adult homeless population. It also aimed to describe the youth homeless population and their significant co-morbidities. **Methods:** Data was derived from the BC Health of the Homeless Study (BCHOHS), carried out in three cities in British Columbia, Canada: the large urban centre Vancouver (n=250); the mid-sized city and capital of the province Victoria (n=150). Measures included socio-demographic information, the Maudsley Addiction Profile (MAP), the Childhood Trauma Questionnaire (CTQ) and the Mini International Neuropsychiatric Interview (MINI) Plus. **Results:** Youth constituted 16.5% (n=82) of the homeless population. Compared to the adult homeless, the homeless youth were more often female (55%), were Aboriginal (47.6%), had greater substance abuse of alcohol (70.7%), amphetamines (8.5%) and cannabis (75.6%). A lower prevalence of sexually transmitted diseases (0.2%) and psychotic disorders (13.4%) was also observed. The prevalence of traumatic experiences, other psychiatric disorders and physical illnesses were similar between the adult and homeless youth. **Conclusion:** Homeless youth have high rates of physical and psychiatric co-morbidity, similar to the adult homeless, despite being 20 years younger. An urgent need for interventions that go beyond the standardized ones being offered to homeless populations as a whole, and to derive specific strategies that target this vulnerable population is required.

Key Words: *youth, homeless, substance abuse, trauma, physical, psychiatric*

Résumé

Objectifs: L'itinérance chez les jeunes est en hausse en Amérique du Nord, et pourtant, cette population vulnérable est rarement étudiée et comparée aux adultes. Cet article visait à étudier les jeunes sans-abri et à identifier les vulnérabilités spécifiques qui les rendaient différents de la population adulte des sans-abri. Il visait également à décrire la population des jeunes sans-abri et leurs comorbidités significatives. **Méthodes:** Les données ont été tirées de l'enquête de la C.-B. sur la santé des sans-abri (BCHOHS), menée dans trois villes de la Colombie-Britannique, au Canada : le grand centre urbain de Vancouver (n=250); la ville de taille moyenne et la capitale de la province, Victoria (n=150). Les mesures incluaient les données sociodémographiques, le profil de toxicomanie de Maudsley (MAP), le questionnaire sur les traumatismes subis durant l'enfance (CTQ) et la mini entrevue neuropsychiatrique internationale (MINI) plus. **Résultats:** Les jeunes constituaient 16,5% (n=82) de la population sans-abri. Comparé aux adultes sans-abri, les jeunes sans-abri étaient plus souvent de sexe féminin (55%), autochtones (47,6%), abusaient davantage de substances d'alcool (70,7%), d'amphétamines (8,5%) et de cannabis (75,6%). Une prévalence plus faible de maladies transmises sexuellement (0,2%) et de troubles psychotiques (13,4%) a aussi été observée. La prévalence des expériences traumatiques, d'autres troubles

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psychiatriques et de maladies physiques était semblable chez les sans-abri jeunes et adultes. **Conclusion:** Les jeunes sans-abri ont des taux élevés de comorbidité physique et psychiatrique, semblables à ceux des adultes sans-abri, malgré qu'ils aient 20 ans de moins. Il y a un besoin urgent d'interventions qui vont au-delà de celles qui sont normalisées et offertes à l'ensemble des populations sans-abri, et il faut trouver des stratégies spécifiques qui ciblent cette population vulnérable.

Mots clés: *jeunes, sans-abri, abus de substances, traumatisme, physique, psychiatrique*

Introduction

For a growing number of North Americans, homelessness is a grim reality and obtaining shelter is part of a daily on-going struggle. Research on the homeless population is therefore essential for policy-makers, program planners, service providers, and community groups because of their potential impact on their overall health and well-being. Homelessness affects single men and women, youth and people of all races and ethnicities, which often have differing health needs and issues (Hwang, 2001). An increasingly vulnerable population among the homeless is young adults or youth, who today make up to one-third of Canada's homeless population. Each night there are approximately 8,000-11,000 youth sleeping on the street or in shelters (Canada Mortgage and Housing Corporation, 2001). Estimates of street/homeless youth in Canada ranged from 10,000-20,000 in 1993 (Brannigan & Caputo, 1993) and have increased to more than 65,000 in the latest count (Canadian Broadcasting Corporation, 2004). In Vancouver, the 2012 homeless count reported 194 individuals being under the age of 25 (Thomson, Woodward, Billows, Greenwell, & Infocus Consulting Ltd., 2012). However due to the nature of homelessness, the exact number of youth living apart from their families and without shelter, is therefore unknown. It is however widely perceived that recorded numbers are steadily increasing upwards.

Pathways and definitions of homelessness vary greatly, epically among the youth. Homeless youth are often referred to as runaways (i.e., youth who have spent more than one night away from home without parental permission), throwaways (i.e., youth who have been forced to leave home by their parents), street youths (i.e., youth who live in high risk non-traditional locations such as under bridges and in abandoned buildings), and systems youth (i.e., youth who have previously been involved in government systems such as foster care or juvenile detention) (Moore, 2005; Greene, Ennett & Ringwalt, 1997). Clearly there are numerous pathways to homelessness, nevertheless, once homeless, youth are at a much greater risk of being the victims of violence (Whitbeck & Hoyt, 1999) than the general population, with females being at particular risk for violence and trauma (Coates & Mckenzie-Mohr, 2010). This leads to several psychological sequelae that include anxiety and depressive symptoms, anger and irritability, and sexual concerns (Coates & Mckenzie-Mohr, 2010). In addition, the lifetime prevalence of psychiatric disorders is almost as twice as high for homeless youth compared with their peers (Slesnick & Prestopnik, 2005; Ginzler, Garrett, Baer, & Peterson, 2007; Fischer & Breakey, 1991; Kamieniecki, 2001). These include clinical diagnoses of depression, anxiety, substance use, posttraumatic stress disorder, and psychosis (Kamieniecki, 2001). Clinically significant anxiety and mood disorders are also particularly prevalent in this population (Parks, Stevens, & Spence, 2007; Yu, North, LaVesser, Osborne, & Spitznagel, 2008), accompanied often by markedly high rates of suicidal ideation, attempts, and completed suicide (Fischer & Breakey, 1991; Desai, Liu-Mares, Dausey, & Rosenheck, 2003). In particular, mortality rates among homeless youth are acutely high with one study in Montreal observing rates to be nine times higher for males and 31 times higher for females, compared to the general population (Roy, 2004; Roy, Boivin, Haley, & Lemire, 1998).

Studies have also consistently found that substance use is more prevalent in homeless youth than their peers (Greene et al., 1997; Slesnick & Prestopnik, 2005; Ginzler et al., 2007). The prevalence of substance use varies across studies, and ranges from 70 to 90% (Slesnick & Prestopnik, 2005; Fischer & Breakey, 1991; Kamieniecki, 2001). While gender differences may exist for substance of choice, most research indicates that the prevalence of substance use disorders is similar in men and women (Slesnick & Prestopnik, 2005). Substances of choice for homeless and street entrenched youth typically are alcohol, cannabis, and crystal methamphetamine (Smart & Adlaf, 1991; Wood et al., 2008; Johnson, Whitbeck, & Hoyt, 2005). Further, homeless youth who use substances have been observed to be more likely to experience mental health sequelae, such as depression and anxiety, and engage in other high-risk behaviors (Fischer & Breakey, 1991; Kamieniecki, 2001).

The consistent finding among all the available studies has been the poor physical and mental health of homeless youth. Yet, available evidence points to a dearth of well-planned studies on homeless youth that could be used to strategize public health policies, specifically targeting this vulnerable population, which is lacking, since most studies treat the homeless as a homogeneous population, grouping everyone in the same manner. Whereas some studies use non-standardized scales, others use a small subset of questions from standardized or other scales, in a piecemeal fashion. As such, the reliability of the assessment tools may be poor. Further, given that homeless youth are a ''hidden population'' often not serviced by traditional health-related

systems (Martijn & Sharpe, 2006), little is known about rates of homelessness and the associated risks among the homeless youth. Therefore, in an exploratory study, we sought to determine the rates and characteristics of homelessness in a prospective community-recruited cohort of homeless youth living in British Columbia, Canada. As a secondary objective, we sought to identify a unique set of factors, which differentiates them from adult homeless populations.

Method

Participants

Between May and September 2009, the BC Health of the Homeless (HOH) Survey sampled homeless populations from three cities in British Columbia, Canada: the large urban centre Vancouver (n=250); the mid-sized city and capital of the province Victoria (n=150); and the more remote, but largest rural city of Prince George (n=100). Participants were at least 19 years of age, able to give informed consent, and self-identified as being homeless. Homelessness was defined as living on the street, in a shelter, couch surfing, or having no fixed address. A significant (15%+) portion of women, young people (aged 19-25) and Aboriginal participants were recruited through focused, purposive sampling due to the additional vulnerabilities that these groups face.

Defining homeless youth is difficult, partly because the housing status of young people on the street varies enormously. For this article, we used the definition of Brannigan and Caputo (1993) where homeless youth refer to those young people who spend considerable amounts of time on the street, who live in marginal or precarious situations and who participate extensively in street lifestyle practices. A common definition of youth in the Canadian context is young people below 25 years of age (Thomson et al., 2012), which is the age group that we have also chosen.

Sampling

This study aimed at recruiting those termed 'Absolutely homeless.' The first half of the sample was restricted to those living on the streets- this group was recruited via street outreach, at drop-in centres, food banks and through service staff. The second half of the sample was recruited randomly from shelters. Shelter beds were randomized, then selected shelter beds received a card with an invitation to participate in the study, and to book an appointment. In order to determine the housing status of potential participants recruited from services and outreach centres, outreach staff was consulted. It's important to note that although this was purposeful sampling, due to the nature of homelessness, participants may have lived on the street one night and in a shelter the next.

Assessments

Face-to-face interviews were conducted for one session by trained interviewers. Interviews were administered primarily in a research office. Some interviews also took place at the site of recruitment, where participants felt most comfortable. Prior to participation, participants were given a detailed description of the study and provided informed consent. Participants each received $30 whether or not the interview was completed. The Behavioural Research Ethics Board of the University of British Columbia and the Providence Health Care Research Institute provided ethics approval.

All participants completed a variety of assessments in the BC HOH Survey including demographic information, the Maudsley Addiction Profile (MAP), the Childhood Trauma Questionnaire (CTQ) and the Mini International Neuropsychiatric Interview (MINI) Plus. The MINI International Neuropsychiatric Interview Plus, version 5.0.0 (MINI-Plus) (Sheehan et al., 1998) is a structured clinical interview based on diagnostic criteria of the Diagnostic and Statistical Manual, 4th ed. (DSM-IV) and the International Classification of Diseases (ICD)-10. It was designed to assess current and lifetime Axis I substance use and mental health disorders as well as antisocial personality disorder. It has been shown to be reliable and valid in several U.S.-based and European studies (Sheehan et al., 1998). The MAP (Marsden et al., 1998) is a self-report measurement that assesses problem behavior in the past thirty days in four domains: substance use, health risk behavior, physical and psychological health, and personal/social functions. For the current study, we included only information on substance use. The Childhood Trauma Questionnaire-Short Form (CTQ-SF) (Bernstein et al., 2003) is a retrospective self-report inventory that assesses different types of childhood maltreatment on five subscales: physical abuse; emotional abuse; sexual abuse; physical neglect; and, emotional neglect. Adult abuse was acknowledged by asking separate questions related to these domains during the interview.

Analysis

For this paper, we explored two questions: what are the characteristics of the homeless youth (n=82; 16.5%), in terms of their demographics and their mental and physical health issues. We also explored for differences between homeless youth and homeless adults, with who they share space, yet remain inherently different. We compared these two populations and analysed associations using T-test and Chi-square tests.

Results

The sample of homeless youth in the BC HOHS formed about 16.5% of the sample (n=82), majority being females (55%), which was significantly different from the adult homeless (p=0.003). The youth sample also had a mean

Table 1. Socio-demographic differences between youth and adult homeless

	Youth n (%)	Adults n (%)	p
City			
Vancouver	41 (50.0)	209 (50.0)	0.17
Victoria	30 (36.6)	120 (28.7)	
Prince George	11 (13.4)	89 (21.3)	
Gender			
Male	37 (45.1)	262 (62.8)	0.003
Female	45 (54.9)	155 (37.2)	
Age (in years)	21.5 (1.8)	41.1 (9)	< 0.001
Ethnicity			
Caucasians	21 (25.6)	247 (59.1)	
First Nation	39 (47.6)	160 (38.3)	< 0.001
Others	22 (26.7)	11 (2.6)	
Incarceration			
Yes	45 (54.9)	283 (67.7)	0.02
No	37 (45.1)	135 (32.3)	
No of times indulged in unsafe sex in last one month	5.3	2.6	0.07

Table 2. Substance use characteristics and differences between youth and adult homeless

	Youth n (%)	Adults n (%)	p
Total number of substances	2.5 (1.5)	2.5 (1.6)	0.983
Substance use			
Alcohol	58 (70.7)	238 (56.9)	0.02
Heroin	17 (20.7)	109 (26.1)	0.308
Cocaine	12 (14.6)	87 (20.8)	0.199
Crack	27 (32.9)	229 (54.8)	< 0.001
Amphetamines	07 (08.5)	14 (03.3)	0.03
Cannabis	62 (75.6)	227 (54.3)	< 0.001
Crystal methamphetamine	08 (09.8)	53 (12.7)	0.46
Days used in last one month			
Alcohol	11. 76 (10.7)	10.54 (10.9)	0.45
Crack cocaine	14.6 (12.9)	15.9 (12.1)	0.59
Cannabis	20. 66 (11.6)	16.02 (12.1)	0.008

age of 21.5 years and had completed high school education (85.4%). Most youth were also located in Vancouver (50%) and the rest distributed between Victoria (36.6%) and Prince George (13.4%). Nearly a half self-identified as First nation or Aboriginal (47.6%), which was again significantly different from the adult homeless ($p < 0.001$).

The homeless youth in our sample had lower rates of incarceration (54.9% vs 67.7% in adults) and used nearly the same number of substances (2.5). However, youth were two times more likely to engage in unsafe sex in the last one month compared to the adult homeless population ($p=0.07$).

Although youth and adults had similar rates of substance use, the type of substance varied between the two groups significantly. Most substance use was that of alcohol (70.7%) in the youth sample, which was significantly lower in the adult sample (56.9%). The other most common substance used was cannabis (75.6%), significantly higher than the adult sample (54.3%) and amphetamines (8.5% versus 3.3%). However, youth had lower rates of crack cocaine use than the adult sample (32.9% versus 54.8%). Among the three substances which differed significantly between the youth and the adults, nearly similar frequencies of use (in the last one month) was noted for both alcohol and crack cocaine. However, youth consumed cannabis on significantly more occasions than the adults (20.6 times versus 16 times).

The homeless youth had similar rates of active Tuberculosis (2.4%), hepatitis (30.5%), head injuries (58.5%) and HIV (6.1%) when compared to the adults. However, they had lower rates of sexually transmitted diseases (0.2%) than the adult homeless (4.8%).

Mental health and abuse

Rates of childhood trauma and adult abuse did not differ between the two groups (Table 3). Extremely high rates of childhood emotional abuse (79.3%), emotional neglect (73.2%), physical neglect (70.7%), physical abuse (67.1%) and sexual abuse (52.4%) were noted. These rates of abuse continued into adulthood with high rates of physical abuse (63.4%), emotional abuse (74.4%) and sexual abuse (26.8%) being observed.

Comparing psychiatric co-morbidity, rates of depression (39%), bipolar disorder (19.5%) and posttraumatic stress disorder (23.2%) were comparatively similar between the youth and the adult homeless. However, the youth were observed to have significantly lower rates of psychosis (13.4%) when compared to the adult homeless (29%).

Discussion

In the present study we found a prevalence rate of 16.5% youth among the homeless in British Columbia, Canada. This meant that one in every six homeless persons is a young individual and is vulnerable to several risk factors that accompany homelessness. This assumes significance because

Table 3. Physical health, mental health and traumatic experiences among the youth and adult homeless

	Youth n (%)	Adults n (%)	p
Physical illness			
TB	02 (02.4)	06 (01.4)	0.62
STDs	01 (0.2)	24 (04.8)	0.09
Head injury	48 (58.5)	270 (64.6)	0.32
HIV	05 (06.1)	33 (07.9)	0.82
Hepatitis	25 (30.5)	148 (35.4)	0.45
Childhood abuse			
Physical	55 (67.1)	289 (69.1)	0.69
Emotional	65 (79.3)	335 (80.1)	0.88
Sexual	43 (52.4)	249 (59.6)	0.27
Emotional neglect	60 (73.2)	318 (76.1)	0.57
Physical neglect	58 (70.7)	319 (76.3)	0.33
Adult abuse			
Physical	52 (63.4)	279 (68.2)	0.397
Emotional	61 (74.4)	331 (80.5)	0.208
Sexual	22 (26.8)	120 (29.2)	0.666
Psychiatric diagnosis			
Depressive disorder	32 (39.0)	190 (45.5)	0.284
Psychotic disorders	11 (13.4)	122 (29.2)	0.003
Bipolar disorder	16 (19.5)	108 (25.8)	0.225
PTSD	19 (23.2)	81 (19.4)	0.432

it has been observed that homeless youth have commonly worse health outcomes and higher rates of mortality (11 times) than an age matched general population (Roy, 2004). This study also observed an over-representation of females and individuals of Aboriginal ethnicity among the homeless youth. Similar findings have been observed in earlier studies where the age range in a youth homeless sample is comparative; there were more females at the younger end and more males at the older end of the age range. More recent research found that young women make up half the homeless youth population (CHRA, 2002). In addition, it has also been estimated that as many as 40% of the homeless population in Canada is Aboriginal (CMHC, 2001) with 41% of the total BC Aboriginal population being at risk of homelessness and 23% being absolutely homeless (United Native Nations Society, 2001). A recent Vancouver homeless count also found that 32% of the homeless counted were Aboriginal despite representing only 2% of the total urban population (Social Planning and Research Council of BC, 2008). Our findings imply that a large number of women and Aboriginal youth are increasingly being driven homeless and therefore constitute a definitive population "at risk."

The homeless youth in our study had lower rates of incarceration which may be explained by the fact that they were sampled relatively early in their lifetime (21 years versus 41 years) and repeated incarceration may possibly increase with time and thus age. In fact, the age of sampling may also explain the lower rates of sexually transmitted diseases (STDs) (0.2%) despite indulging in higher rates of unsafe sex, implying that one would expect to see a larger epidemic of sexual diseases in the future, unless this current trend were to be corrected. The most concerning fact however remains the observation that more than a half of the homeless youth have suffered traumatic brain injuries (58%) despite being just 21 years of age. Coupled with the high prevalence of substance use, this again gives rise to the frightening possibility of increasing injuries in the future.

Among the substances used, alcohol and cannabis continue to be the drugs of choice for homeless youth with more than 70% prevalence of either substance found in this study. The rate of alcohol and cannabis use in our sample is similar to that of a sample of homeless youth in Toronto (Smart & Adlaf, 1991). Additionally these high rates fit with reported substance use trends in Vancouver and Victoria (Martens et al., 2008; Whitbeck, Hoyt, & Bao, 2000). Although such high rates of alcohol use can be accounted for by the legal status and easy availability of alcohol, it is difficult to explain cannabis use using similar reasons. The high prevalence of cannabis use calls into question the increasingly vocal demands for legalization of cannabis use, which by itself, is fraught with several dangers. Although one may argue that the lower rates of psychosis seen among the youth despite high rates of cannabis use are an indicator of their "safety," it must be understood that these users may simply not have developed psychosis yet and may do so further in their lifetimes. In fact, the high rates of all psychiatric illnesses seen among the youth despite the age of sampling are an indicator of the kinds of distress that the youth have to face, day in and day out. Such high rates have been observed earlier, with depression, psychosis, PTSD and suicidal behaviors (Kamieniecki, 2001; Parks, Stevens, & Spence, 2007; Yu et al., 2008; Desai et al., 2003; Whitbeck, Hoyt, & Bao, 2000).

Further, majority of the research into the backgrounds of street youth that focused on physical and sexual abuse has observed consistently high rates of both (MacLean, Embry, & Cauce, 1999; Ringwalt, Greene, & Robertson, 1998). Histories of emotional abuse (Ringwalt, Greene, & Robertson, 1998) and neglect (Dadds, Braddock, Cuers, Elliott, & Kelly, 1993) have also been frequently reported. This study also observed extremely high rates of all forms of childhood and adult abuse, including physical, sexual and emotional. Furthermore, the probability that these homeless youth will

continue to be victimized and abused likely increases in accordance with the amount of time spent on the street (Huba et al., 2000; Fuller, 2001), further demonstrating the urgent need for interventions that address youth homelessness on a war footing. As has been observed above, rates of all psychological disorders among the youth are high, with some youth linking their mental health problems to their going to the streets, while others have existing problem that they find developed or worsened due to the stresses and strains of street life and continued victimization when on the street (Whitbeck, Hoyt, & Bao, 2000).

The primary findings of this study have been the high rates of physical and psychiatric co-morbidity among the homeless youth, which are similar to the adult homeless, despite being 20 years younger. This calls for speculation that such rates could only increase with time, although the reasons for these age differences are unclear. However, this may reflect an understanding that current interventions lack efficacy in addressing the specific needs of homeless youth and that differing strategies need to be evolved keeping in mind the differing substance use patterns among the homeless youth. In addition, homeless youth in this study had significantly higher rates of both depression and anxiety disorders (39% and 23%) compared to youth from the community (7% and 3%) (Pearson, Janz, & Ali, 2013), which also reflects the urgent need to target this vulnerable population.

The present study has several limitations. First, although extensive street-based outreach efforts and snowball sampling methods were used to derive a representative sample of homeless youth, this was by no means a random sample as there are hardly any registries from which a random sample can be drawn. Further, there may be difficulties in performing a direct comparison between youth and adults due to this sampling procedure. Yet the demographics of this cohort are similar to other similar studies of homeless youth (Ochnio, Patrick, Ho, Talling, & Dobson, 2001; Rachlis, Wood, Zhang, Montaner, & Kerr, 2009). In addition, our study was cross-sectional which may have under-estimated the rates of homelessness given the fact that young people often move into and out of homelessness at different times (May, 2003). However, we still believe that the findings of our study underline the important facets of youth homelessness, especially the high rates of substance use (alcohol and cannabis), physical and psychiatric illnesses. They also point to the urgent need for interventions that go beyond the standardized ones being offered to homeless populations as a whole, and to derive specific strategies that target this vulnerable population.

Youth homelessness is a growing concern in Canada and throughout British Columbia. Interventions to prevent homelessness and support those who are homelessness are needed. Particularly age specific programs that address the high-risk behavior that youth are engaged in and increase their vulnerability to further victimization are the call of the hour.

Acknowledgements/Conflicts of Interest

The authors have no financial relationships to disclose.

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