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A cross-sectional examination of the mental health of homeless mothers: does the relationship between mothering and mental health vary by duration of homelessness?

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ABSTRACT

Objectives: This study draws on baseline data from the At Home/Chez Soi demonstration project to examine the association between parenting status and mental health among homeless women and whether the association varies by duration of homelessness.

Setting: Structured interviews were conducted with participants in five cities across Canada including Moncton, Montreal, Toronto, Vancouver and Winnipeg.

Participants: Eligibility criteria included those with legal adult status, with a mental illness, and who lacked a regular, fixed shelter. All 713 women who participated in the larger project were selected for inclusion in this analysis.

Measures: The mental health conditions of interest include depression, post-traumatic stress disorder (PTSD), alcohol dependence and substance dependence.

Results: The relationship between parenting status and depression, as well as PTSD, varied by duration of homelessness. Among women who had been homeless for less than 2 years, no relationship was found between parenting status and depression, or PTSD. However, among women who had been homeless for 2 or more years, the odds of depression was twice as high among parenting women compared with others (aOR=2.05, $p \leq 0.05$). A similar relationship was found between parenting status and PTSD (aOR=2.03, $p \leq 0.05$). The odds of substance dependence was found to be 2.62 times greater among parenting women compared with others and this relationship did not vary by duration of homelessness (aOR=2.62; 95% CI 1.86 to 3.69). No relationship was found between parenting and alcohol dependence.

Conclusions: Overall, the findings from this study suggest that there is a relationship between long-term homelessness and mothers' risk of poor mental health. Given the multiple demands mothers face, a failure to recognise their unique needs is likely to contribute to intergenerational legacies of homelessness and mental health problems.

Strengths and limitations of this study

- An important strength of this study is the relatively large sample of homeless women across Canada (n=713).
- The main limitation of this study surrounds the cross-sectional analysis as reverse causation is a possibility given that the temporality of events cannot be accounted for.
- The study is also limited in that women who never had children and those with adult children could not be distinguished from each other.

Trial registration number: World Health Organization's International Clinical Trials Registry Platform (ISRCTN66721740 and ISRCTN57595077).

BACKGROUND

Families are currently the fastest growing segment of the homeless population in North America.[1–3] The literature surrounding homeless families is dominated by the experiences of mothers within the shelter system, particularly their struggle to maintain their family structure. Sheltered families are more vulnerable to a 'fishbowl' effect as homeless mothers are parenting in a highly visible public environment under circumstances of poverty and housing instability where stress levels are high and coping skills are strained.[1] This context of 'fishbowl' parenting tends to magnify family problems. Consequently, there is a high risk of involuntary family fragmentation through child welfare involvement and apprehension.[4] For many homeless mothers, the end result is that they are separated and no longer living with their children.[5 6]

Among homeless mothers, mental health problems are thought to be rooted, in part,

in an undermining of their feelings of competency as a parent.[7] This perception of failure may promote feelings of shame, unworthiness and low self-esteem. For mothers whose children have been apprehended by child welfare services, the grief and rage is often so great that many women cannot fully remember the event clearly.[8 9] Further, the apprehension of their children serves to increase emotions of loss—depression, grief and pain compounded by guilt and anger.[10 11] Moreover, mother–child separations often contribute an added stress for women who are not only seeking secure housing, but are seeking housing in an effort to reunite with their children. These symptoms and circumstances are often unacknowledged by health and social workers involved in homeless mothers' lives as many mental health assessments do not take into account how the mothering role may be relevant to a woman's mental health.[12] Each of these factors puts the woman at risk for chronic psychological suffering[9] and explicitly discourages homeless mothers from maintaining their family structure and retaining custody of their children.[13] It is these complex circumstances that suggest that homeless mothers of young children may suffer from unique patterns of mental health problems, including problems with substances, compared with homeless women who are not mothers or who have grown children.

While there is a growing body of literature addressing the challenges and mental health needs facing homeless women, much of the literature does not account for the heterogeneity among women by suggesting that homeless mothers who no longer have custody of their children are the same as single women with no children. In a number of studies, homeless women are identified as either accompanied by children or unaccompanied by children.[14–18] For the majority of homeless mothers who are not accompanied by their children, this categorisation disregards their role as mothers by combining women who are separated from their children with women who have no children.

The connections between family circumstances and mental health among homeless women are not well understood. It is also unclear how family circumstances influence pre-existing mental health problems. Given the high risk for child apprehension and the impact of family fragmentation on a woman's mental health, this is an important gap in the literature that poses a substantial barrier to our understanding of the impact of family circumstances on the service needs of homeless mothers. As Barrow and Laborde[14] point out, the inability to better understand the circumstances of homeless mothers creates a population of 'invisible mothers' who are separated from their children and ignored. Without a comprehensive understanding of the complex web of issues and needs that homeless mothers struggle with, social services and policies designed to support them will be inadequate.

This study seeks to contribute to our knowledge surrounding: (A) the challenges facing homeless women through a better understanding of the role of mothering status on the mental health of homeless women, and (B) whether or not the duration of homelessness moderates the relationship between mothering and mental health. By drawing from a national sample of homeless women with mental health problems, this study is positioned to not only document the mental health problems of homeless women but to assess whether or not differences in the patterns and severity of mental health problems exist based on parenting status and duration of homelessness. Given the growing rate of homelessness among families, obtaining a better understanding of the connections between family circumstances and mental health among homeless women is a critical issue.

METHODS

This analysis draws from the subsample of women who participated in the At Home/Chez Soi Study (AHS). The AHS is a national demonstration project funded by the Mental Health Commission of Canada (MHCC) that was conducted in five sites across Canada: Moncton, New Brunswick; Montreal, Quebec; Toronto, Ontario; Vancouver, British Columbia and Winnipeg, Manitoba. The 4-year randomised controlled trial, conducted during 2009–2013, was based on a Housing First model and designed to provide evidence about what service and system interventions achieve improved housing stability, health and well-being for the target population of homeless adults living with mental illness. Unlike other housing programmes, the Housing First model assists participants in community integration through the provision of independent, scattered-site housing and client-centred services without a requirement for sobriety or active treatment as a condition for participation.[19]

Study participants were recruited through referrals from a wide variety of agencies in the community including housing, mental health and criminal justice programmes and were randomised to either treatment as usual (no housing or support through the study) or to housing and support interventions based on their level of need. Eligibility criteria included those with legal adult status (18 years or older in all cities but Vancouver where the age of majority is 19 years), with a mental illness, and who lacked a regular, fixed shelter or whose primary residence was a single room occupancy, rooming house or hotel/motel. The baseline questionnaire focused on a broad range of domains including housing, health status, community integration, recovery, vocational attainment, quality of life, health and social services, and criminal justice system involvement. Of relevance to this analysis, questionnaire data were collected surrounding sociodemographic characteristics, symptoms of mental illness, patterns of substance use and duration of homelessness.

Detailed information surrounding mental health conditions was obtained through administration of the

MINI-International Neuropsychiatric Interview (MINI). The MINI is a structured diagnostic interview developed to screen for the most common psychiatric disorders. The instrument has been validated against other diagnostic interviews and has been found to have a good level of concordance and a high level of reliability.[20] The mental health conditions of interest in this analysis, drawn from the MINI, include major depression, post-traumatic stress disorder (PTSD), alcohol dependence and substance dependence as they have been found to be prevalent in site-specific AHS samples[21 22] as well as populations of women living in poverty.[23 24]

All participants provided written informed consent. Further, the AHS has been registered with the WHO's International Clinical Trials Registry Platform (ISRCTN66721740 and ISRCTN57595077) and has been approved by the Research Ethics Boards at all participating organisations. More specific details regarding the study design, questionnaire, measures and methods have been published elsewhere.[25]

This study draws from the subsample of 713 women who completed the baseline questionnaire. The analysis begins with an investigation of the sociodemographic characteristics and mental health conditions of the women and bivariate comparisons by mothering status. A second bivariate comparison examines sociodemographic characteristics and mental health conditions by duration of homelessness, followed by a series of multivariable logistic regression models that examine the relationship between mothering status and each mental health condition of interest and whether or not duration of homelessness modifies the relationship. All analyses were conducted with SPSS V.22.0.

RESULTS

Sociodemographic characteristics and mental health conditions of mothers

As shown in table 1, the women in the sample are primarily aged 25–44 years of age (53%), single and never married (66%) and of minority background (53%). Approximately, half of the women reported less than a high school education and experienced 2 or more years of homelessness. Significant differences in the sociodemographic characteristics of the sample were found by mothering status. Women with children were more likely to be of Aboriginal background, have reported less than a high school education, be married or partnered, and have experienced 2 or more years of homelessness compared with women without children.

As presented in table 2, rates of mental health conditions among the women in the sample were high. Over half of the sample met criteria for major depression (58%) and 41% met criteria for PTSD. Substance and

Table 1 Sociodemographic characteristics by mothering status

Sociodemographic characteristics	Overall		Mothering status				
			Yes		No		
	n	Per cent	n	Per cent	n	Per cent	
Race/ethnicity							**
White	331	46.4	110	33.2	221	66.8	
Aboriginal	187	26.2	119	64.3	66	35.7	
Other, mixed background	195	27.3	63	32.8	129	67.2	
Age (years)							**
<25	78	10.9	32	41.0	46	59.0	
25–44	375	52.6	204	54.8	168	45.2	
45 and older	260	36.5	56	21.7	202	78.3	
High school education†							**
Yes	344	48.5	117	34.3	224	65.7	
No	365	51.5	173	47.7	190	52.3	
Marital status†							*
Single, never married	470	66.2	192	41.2	274	58.8	
Married/partnered	40	5.6	24	60.0	16	40.0	
Separated/widowed/divorced	200	28.2	75	37.7	124	62.3	
Social support (close friend)†							
Yes	397	56.0	161	40.9	233	59.1	
No	312	44.0	128	41.3	182	58.7	
Duration of homelessness, lifetime† (years)							**
<2	371	52.0	130	35.3	238	64.7	
≥2	342	48.0	162	47.6	178	52.4	
Total	713		292	41.2	416	58.8	

Pearson χ^2: **p≤0.01, *p≤0.05.
†Numbers may not sum to total as a result of missing data.

Table 2 Mental health conditions by mothering status

Mental health conditions	Overall		Mothering status				
			Yes		No		
	n	Per cent	n	Per cent	n	Per cent	
Major depression							**
Yes	413	57.9	193	66.1	220	52.9	
No	300	42.1	99	33.9	196	47.1	
PTSD†							**
Yes	295	41.4	145	49.8	149	35.8	
No	417	58.6	146	50.2	267	64.2	
Alcohol dependence							**
Yes	224	31.4	114	39.0	109	26.2	
No	489	68.6	178	61.0	307	73.8	
Substance dependence							**
Yes	331	46.4	183	62.7	146	35.1	
No	382	53.6	109	37.3	270	64.9	
Total	713		292	41.2	416	58.8	

Pearson χ^2: **p≤0.01, *p≤0.05.
†Numbers may not sum to total as a result of missing data.
PTSD, post-traumatic stress disorder.

alcohol dependence were also common (46% and 31%, respectively). Further, women with children were significantly more likely to meet criteria for all mental health conditions compared with women without children. Rates of alcohol and substance dependence were almost 80% and 50% greater, respectively, among women with children compared with women without children; and rates of major depression and PTSD were 25% and 40%, respectively, greater among women with children compared with others.

In table 3, rates of sociodemographic characteristics and mental health conditions are presented by duration of homelessness. Compared with women who reported being homeless for less than 2 years, women who reported being homeless for 2 or more years were more likely to be of Aboriginal background, without a high school education, married/partnered and mothering. Duration of homelessness was also positively associated with all mental health conditions of interest.

Effects of mothering status and duration of homelessness on mental health

The multivariable analysis allows for a deeper investigation of the potential for duration of homelessness to moderate the relationship between mothering status and mental health conditions among homeless women in the sample. Tables 4–7 present summary logistic regression results predicting each of the four mental health conditions of interest, disaggregated by duration of homelessness, while controlling for sociodemographic characteristics that might account for the effects of mothering status. A final model is also presented that includes the effects of mothering status, duration of homelessness and an interaction term, if appropriate.

Table 4 presents the results examining the effect of mothering on major depression, comparing models among women who were homeless for less than 2 years with women who were homeless for 2 or more years. The results indicate that, among women who were homeless for 2 or more years, mothering is positively associated with major depression. Further, the odds of major depression among mothers is twice that of women who are not mothers. No significant relationship between mothering status and major depression was found among women who had been homeless for less than 2 years. The final interaction model assesses the question of whether or not duration of homelessness moderates the relationship between mothering status and major depression. The statistically significant interaction term indicates that the relationship between mothering status and major depression does indeed vary by duration of homelessness.

In table 5, a similar set of results examine the effect of mothering on PTSD, again comparing models for women who were homeless for less than 2 years to women who were homeless for 2 or more years. The results indicate that, among women who were homeless for 2 or more years, mothering is positively associated with PTSD. The odds of PTSD among mothers is almost twice that of women who are not mothers. No significant relationship between mothering status and PTSD was found among women who had been homeless for less than 2 years. The final interaction model indicates that the interaction term between mothering status and duration of homelessness is not statistically significant at the 0.05 level.

Table 6 presents the results assessing the effect of mothering on alcohol dependence, comparing models by duration of homelessness. Mothering status was not associated with alcohol dependence among either group of women. Further, in the final model, neither mothering status nor duration of homelessness was associated with alcohol dependence.

Table 3 Sociodemographic characteristics and mental health conditions by duration of homelessness

Sociodemographic characteristics	Duration of homelessness <2 years n	<2 years Per cent	≥2 years n	≥2 years Per cent	
Race/ethnicity					**
White	191	57.7	140	42.3	
Aboriginal	71	38.0	116	62.0	
Other, mixed background	109	55.9	86	44.1	
Age (years)					
<25	47	60.3	31	39.7	
25–44	184	49.1	191	50.9	
45 and older	140	53.8	120	46.2	
High school education†					**
Yes	205	59.6	139	40.4	
No	165	45.2	200	54.8	
Marital status					*
Single, never married	239	50.9	231	49.1	
Married/partnered	15	37.5	25	62.5	
Separated/widowed/ divorced	117	58.5	83	41.5	
Social support (close friend)†					
Yes	216	54.4	181	45.6	
No	154	49.4	158	50.6	
Mothering†					**
Yes	130	44.5	162	55.5	
No	238	57.2	178	42.8	
Mental health conditions					
Major depression					!
Yes	203	49.2	210	50.8	
No	168	56.0	132	44.0	
PTSD†					**
Yes	131	44.4	164	55.6	
No	239	57.3	178	42.7	
Alcohol dependence					**
Yes	100	44.6	124	55.4	
No	271	55.4	218	44.6	
Substance dependence					**
Yes	137	41.4	194	58.6	
No	234	61.3	148	38.7	
Total	371		342		

Pearson χ^2: **p≤0.01, *p≤0.05, !p≤0.10.
†Numbers may not sum to total as a result of missing data.
PTSD, post-traumatic stress disorder.

Finally, in table 7, the role of mothering status on substance dependence was examined. Mothering status was found to be positively associated with substance dependence among the women who had been homeless for 2 or more years as well as women who had been homeless for less than 2 years. Among women who had been homeless for 2 or more years, the odds of substance dependence among mothers was over twice that of women who are not mothers. Further, among women who had been homeless for less than 2 years, the odds of substance dependence was almost three times that of non-mothers. These disaggregated results indicate that duration of homelessness does not moderate the relationship between mothering status and substance dependence. Thus, the final model does not include an interaction term and the results reveal that mothering status and duration of homelessness operate independently on substance dependence. Here, the odds of substance dependence is 2.6 times greater among women who are mothers compared with non-mothers and 1.9 times greater among women who have been homeless for 2 or more years compared with women who have been homeless for a shorter duration.

DISCUSSION

This analysis has examined the role of mothering on the mental health of homeless women within a context of family homelessness. While research has focused on the mental health and service needs of homeless populations, much less attention has been paid to homeless families. Further, much of the literature on homeless families focuses on the experiences of mothers within the shelter system and mothers' attempts to maintain their family structure while parenting in public.[1 2 4 5 15 26–31] Although this literature highlights some of the issues surrounding family homelessness, the connections between family circumstances and mental health among homeless women and how family circumstances might influence pre-existing mental health conditions are not well understood. The current study examined whether the mothering role is associated with the mental health of homeless women, and whether or not the duration of homelessness moderates the relationship between mothering and mental health.

Effects of mothering on mental health

Overall, rates of all mental health conditions of interest were high among this national sample of homeless women. This is not unexpected given the long-standing literature that speaks to poor mental health among individuals living in poverty.[23 24] Further, the selection criteria for participation in the AHS included a mental illness. However, in bivariate analyses, women with children experienced higher rates of mental health conditions compared with women without children. This finding is in keeping with results drawn from the Commonwealth Fund 1998 Survey of Women's Health where poor single mothers were found to have higher levels of depression compared with poor non-mothers.[32] In multivariable models, evidence of the effect of mothering status on mental health was mixed. Controlling for other factors, no differences in alcohol dependence were found among mothers compared with women without children indicating that mothering status does not predispose or protect a poor woman from alcohol problems. However, mothers were significantly more likely to meet criteria for substance

Table 4 Summary of logistic regression results predicting major depression by duration of homelessness

	Major depression models†										
	Homeless <2 years				Homeless ≥2 years				Final model			
	β	aOR	95% CI		β	aOR	95% CI		β	aOR	95% CI	
Mothering	−0.05	0.95	(0.60 to 1.50)		0.72	2.06	(1.26 to 3.36)	**	−0.06	0.94	(0.60 to 1.49)	
Homeless ≥2 years	–				–				−0.18	0.84	(0.56 to 1.26)	
Interaction term	–				–				0.77	2.17	(1.13 to 4.16)	*
Model χ^2	20.60			**	37.54			**	59.35			**
n	366				331				697			

**p≤0.01, *p≤0.05, !p≤0.10.
†Models control for the confounding effects of race/ethnicity, high school education, marital status and social support.

dependence compared with women without children. While this finding could indicate that poor women with children are more inclined toward substance dependence, it is equally likely that women with substance dependence problems are more likely to have children. In either case, these findings point to the need for timely and appropriate substance abuse treatment targeting homeless mothers, particularly mothers who are involved with child welfare.[33]

Effects of duration of homelessness on mothering and mental health

The duration of homelessness was also found to be related to mental health. In bivariate analyses, rates of PTSD, alcohol dependence and substance dependence were found to be significantly higher among women who had been homeless for 2 or more years compared with women who had been homeless for less than 2 years. While not statistically significant at the 0.05 level, a similar trend was seen for major depression. In multivariable analyses, the relationship between duration of homelessness and mental health was more complex. On the one hand, duration of homelessness was found to be positively related to substance dependence, controlling for other variables. These results are consistent with other research on the relationship between prolonged and persistent homelessness and substance dependence.[34] On the other hand, no independent relationship between duration of homelessness and alcohol dependence was found. Although this finding is inconsistent with previous research conducted by Patterson *et al*,[34] the lack of correspondence across studies may be explained by the different samples and alcohol-related measures examined. Further, Patterson *et al* did not disaggregate their analyses by sex suggesting that there may be differences between men and women in how duration of homelessness relates to alcohol problems.

This study also found that the relationship between mothering and major depression varied by duration of homelessness. Among women who had been homeless for less than 2 years, mothers were no more likely than women without children to experience major depression. It is not until women experienced prolonged homelessness that mothers were more likely to be depressed compared with women without children. A similar pattern was found for PTSD.

The findings from this study also suggest a multifaceted relationship between the duration of homelessness, mothering and various mental health conditions among women living in poverty. While complex interactions exist between motherhood and various social, economic and health factors (such as education, income and employment),[35 36] the burden of multiple stressors relates to poorer mental health and as the number of stressors increases, the probability of poor outcomes increases.[32] We found some evidence that the stress of prolonged homelessness seems to have a stronger effect on women who are mothering compared with women who are not. This is likely, in part, because mothers faced with the stress of poverty and housing instability

Table 5 Summary of logistic regression results predicting post-traumatic stress disorder (PTSD) by duration of homelessness

	PTSD models†										
	Homeless <2 years				Homeless ≥2 years				Final model			
	β	aOR	95% CI		β	aOR	95% CI		β	aOR	95% CI	
Mothering	0.07	1.08	(0.67 to 1.73)		0.66	1.93	(1.20 to 3.09)	**	0.09	1.09	(0.69 to 1.74)	
Homeless ≥2 years	–				–				0.17	1.19	(0.78 to 1.81)	
Interaction term	–				–				0.53	1.70	(0.90 to 3.24)	!
Model χ^2	17.11			*	36.23			**	59.06			**
n	365				331				696			

**p≤0.01, *p≤0.05, !p≤0.10.
†Models control for the confounding effects of race/ethnicity, high school education, marital status and social support.

Table 6 Summary of logistic regression results predicting alcohol dependence by duration of homelessness

	Alcohol dependence models†									
	Homeless <2 years				Homeless ≥2 years				Final model‡			
	β	aOR	95% CI		β	aOR	95% CI		β	aOR	95% CI	
Mothering	−0.12	0.89	(0.52 to 1.52)		0.25	1.28	(0.75 to 2.20)		0.06	1.06	(0.73 to 1.55)	
Homeless ≥2 years	–				–				0.07	1.08	(0.75 to 1.55)	
Interaction term	–				–				–			
Model χ^2	48.84			**	86.41			**	125.47			**
n	366				331				697			

**p≤0.01, *p≤0.05, !p≤0.10.
†Models control for the confounding effects of race/ethnicity, high school education, marital status and social support.
‡Interaction term was not significant in the final model.

Table 7 Summary of logistic regression results predicting substance dependence by duration of homelessness

	Substance dependence models†									
	Homeless <2 years				Homeless ≥2 years				Final model‡			
	β	aOR	95% CI		β	aOR	95% CI		β	aOR	95% CI	
Mothering	1.07	2.92	(1.80 to 4.74)	**	0.88	2.40	(1.47 to 3.94)	**	0.96	2.62	(1.86 to 3.69)	**
Homeless ≥2 years	–				–				0.66	1.94	(1.39 to 2.70)	**
Interaction term	–				–				–			
Model χ^2	57.84			**	53.40			**	126.58			**
n	366				331				697			

**p≤0.01, *p≤0.05, !p≤0.10.
†Models control for the confounding effects of race/ethnicity, high school education, marital status and social support.
‡Interaction term was not significant in the final model.

must do their best to care for their children while also overcoming adverse life circumstances. When a family's financial resources and social supports are in short supply, women with children must stretch their limited resources further to meet both their own needs and those of their children. In short, it is more problematic to be living in poverty when you have dependents than when you do not, because more family members are sharing the limited resources. Further, as the duration of homelessness increases, the likelihood of involuntary family fragmentation through child welfare involvement is a high risk as are the mental health consequences of the trauma of losing child custody. Moreover, the intergenerational legacies related to homelessness, mental illness and foster care have untold consequences for children.

Limitations

While this study provides important insight into the relationship between the duration of homelessness and mental health among women who are mothers, the results should be considered in light of several methodological limitations. The most important limitation of this analysis is the possibility of reverse causation. The cross-sectional analysis is unable to discriminate between the impact of mothering on mental health and the possibility that women who have mental health conditions are more likely to be mothers. While this is an important limitation with regard to the temporality of events, the results do provide important information about the broad associations between the duration of housing instability, mothering circumstances and mental health among women in Canada. This study is also limited in that we were unable to distinguish between women who never had children and those with adult children. While it is possible that there are important differences between these two groups of women, for purposes of this analysis, neither were attempting to parent minor children.

CONCLUSIONS

Overall, the findings from this study suggest, not surprisingly, that there is something about long-term homelessness that is related to mothers' risk of poor mental health. One can only speculate on the mechanisms involved as further research is necessary to better understand the pathways at hand. In the meantime, housing policies and services that seek to re-house mothers in a timely fashion may serve to protect mothers' mental health. Given the multiple demands mothers face in their efforts to maintain their family, reunite with their children or mourn the loss of children who are no longer in their care, a failure to attend to their unique needs is likely to contribute to intergenerational legacies of homelessness and mental health problems.

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Contributors All authors participated in the conception and development of this manuscript. DMZ conducted the analyses and wrote the first draft of the manuscript. MP and AW revised the manuscript. All authors critically read and approved the final version.

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