# The Role of Services for Homeless and Housed People with Mental Illness:
# The Relationship between Service Use and Housing Stability, Recovery, and Capabilities

by

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# Abstract

People with mental illness and histories of homelessness represent a vulnerable and marginalized population for whom a wide range of health, social, and community services have been developed. Despite the array of services, their role in the lives of currently and formerly homeless people with mental illness is not fully understood. Three studies were conducted that addressed two research questions: [1] How do patterns of service use differ during transitions from homelessness to housing compared to those from housing to homelessness among people with mental illness? and [2] What is role of services in enhancing the lives of housed and homeless people with mental illness?

The first research question was addressed in Study 1, which involved secondary data analysis from a multisite randomized controlled trial of Housing First in Canada known as the At Home/Chez Soi demonstration project. The study explored how service use patterns over 24 months differed among people who achieved housing stability compared to those who remained unstably housed or re-experienced housing instability during the second year of the study. Findings showed that, as homeless people with mental illness transition into stable housing, their service use patterns change, with less time being spent in psychiatric hospitals, prison, and emergency shelters. Housing First minimally affected the changes in service use patterns, indicating that housing stability is the key factor in producing the changes as people transition out of homelessness.

Study 2 also used data from the At Home/Chez Soi demonstration project to examine predictors of recovery among homeless people with mental illness at baseline and 24 months. Findings showed that health and community factors most strongly predicted mental health recovery at baseline. The housing and service use block of predictors was also significantly associated with most components of recovery, though the effect sizes were small. At 24 months, the model, which included receipt of Housing First, did not significantly predict residual changes in recovery from baseline.

Study 3 of this dissertation qualitatively explored how currently and formerly homeless people with mental illness view services in their lives using two theoretical frameworks: recovery (Part 1) and the capabilities approach (Part 2). In-depth interviews were conducted with 52 participants living in Ottawa, Ontario. Participants perceived services to have a range of positive and negative impacts of their recovery and capabilities. However, the limits of service helpfulness in helping people to move forward with their lives was also highlighted.

Overall, the findings of this dissertation indicate that the health, social, and community services used by homeless people with mental illness change as people become stably housed yet are limited in their impacts on recovery and capabilities. Implications for transformative change, service delivery, and future research are discussed.

# Acknowledgments

First and foremost, I would like to thank the people who participated in this research by sharing their stories, ideas, and time for the purpose of improving service delivery to people who have experienced homelessness. The conversations we had were both enlightening and a continual source of motivation for me throughout this research. This dissertation would not have been possible without you.

I would like to extend my deepest gratitude to Dr. John Sylvestre for his continuous guidance and support throughout this research, as well as the many other related studies and evaluations on which I had the opportunity to work and collaborate. Your encouragement to take a critical yet open-minded stance in evaluating the concepts, assumptions, and methods that underlie the field of community mental health services research considerably strengthened this dissertation, as well as my overall approach as a researcher.

Thank you to my dissertation committee examiners comprised of Drs. Tim Aubry, Susan Farrell, Sean Kidd, and Deborah Padgett. Dr. Aubry, thank you for your suggestions on how to strengthen the designs and statistical analyses of the quantitative studies, as well as your support in accessing the data from the At Home/Chez Soi demonstration project. Dr. Farrell, thank you for your thoughtful comments on the research design and practice implications of this dissertation, as well as your guidance on my clinical training. Dr. Kidd, thank you for your continued support leading up to and throughout my doctoral studies, your feedback on conceptualizing studies and considering impact, and the professional development and career advice over the years. Dr. Padgett, thank you for your recommendations on how to achieve analytic depth using mixed-methods and your supportive comments on this research.

Thank you to the research team of the At Home/Chez Soi demonstration project for granting permission to use trial data for the first two studies of this dissertation, as well as to the three community agencies in Ottawa who assisted with recruitment of participants for the third study. Additionally, thank you to the Ontario Mental Health Foundation and Mental Health Research Canada for the financial support to carry out and disseminate this research.

Shannon, thank you for your never-ending support in the context of this research and for bringing me such happiness outside of it. As promised, here are the eleven words I said would appear here: “Thanks wifey for the seafood mac and cheese, and knowledge exchange.” Thank you to the many family members, friends, and colleagues who provided encouragement and support over the course of my doctoral studies.

This dissertation was written while listening to too many records by The National, Beach Slang, The Smith Street Band, Car Seat Headrest, Diet Cig, Tokyo Police Club, Courtney Barnett, PUP, Against Me!, Remember Sports, Tiny Little Houses, and Frightened Rabbit. It is recommended that readers also listen to these artists while perusing this document. A good dissertation is a finished one but a great dissertation comes with a soundtrack.

## Study Contributors

This dissertation is comprised of three studies, one of which is presented in two parts. Studies 1 and 2 involved secondary data analysis from the At Home/Chez Soi demonstration project, a Canadian multisite randomized controlled trial of Housing First. Study 3 (Parts 1 and 2) is a qualitative study that involved original data collection. Mr. Nick Kerman conceptualized, designed, and performed data analysis for each study in this dissertation. He also collected the data for Study 3. Dr. John Sylvestre supervised all studies presented in this dissertation. Drs. Tim Aubry and Jino Distasio, co-authors on Studies 1 and 2, were members of the national research team and the co-leads of the Moncton and Winnipeg sites of the At Home/Chez Soi project, respectively. Dr. Christian Schütz, a co-author on Study 2, was a member of regional research team of the Vancouver site.

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The development and completion of this research took approximately three years. During this period, in Ottawa, the number of single men and women using an emergency shelter each year rose from 3,880 to 4,119 and the wait list for affordable housing for single adults went from 3,776 to 3,881 (Alliance to End Homelessness Ottawa, 2017; City of Ottawa, 2018).

It is unknown how many people experiencing homelessness died during this period.

## Objective and Structure of Dissertation

This dissertation aims to advance the knowledge base on the effects of health, social, and community services in the lives of people with mental illness and histories of homelessness. To achieve this goal, three studies were conducted that used either quantitative or qualitative methods. The main sections of the dissertation (italicized) are described below.

The *general introduction* of the dissertation begins by reviewing the scope, types, and consequences of homelessness. The range of services that exist for people with mental illness and histories of homelessness are then discussed, including the challenges in predicting service use and the importance of understanding service experiences for this population. Next, systemic barriers and facilitators are highlighted as these key factors can impact whether services are effective in achieving their goals, including helping people to exit homelessness. One facilitator, an intervention known as Housing First, is reviewed in greater depth as it is examined by two of the studies in this dissertation. Finally, the introduction outlines the two theories, recovery and the capabilities approach, that guide much of the research in this dissertation.

The research of the dissertation is presented as four papers (two published articles and two unpublished manuscripts). *Study 1* used secondary data from the At Home/Chez Soi demonstration project, a multisite randomized controlled trial of Housing First, to explore how service use changes during homelessness-housing transitions and whether the intervention affected the relationships between service use and housing status. *Study 2* also used At Home/Chez Soi data to quantitatively explore how service use, among other factors, affected ratings of recovery. The third study is presented in this dissertation in two parts. Using qualitative data that were collected for this dissertation, *Study 3, Part 1* examined how people with mental illness and histories of homelessness viewed their service use to affect their recovery. *Study 3, Part 2* used the same qualitative dataset and a capabilities approach framework to more broadly understand the perceived impacts of services in the lives of people with mental illness and histories of homelessness.

The research findings are summarized, with their similarities and differences also being discussed, in the *general discussion* of this dissertation. Given the partial overlap in the findings related to recovery and capabilities, a capabilities-informed recovery framework is proposed for considering the impacts and limitations of existing services in the lives of people with mental illness and histories of homelessness. The implications of the research with regard to transformative change in service systems and direct service delivery are then discussed. The dissertation ends by acknowledging the limitations of the studies, areas for future research, and final conclusions.

# General Introduction

## Background

It is estimated that more than 235,000 people experience homelessness in Canada every year (Gaetz, Dej, Richter, & Redman, 2016). The scope of the problem is matched by its complexity. Homelessness takes many forms from people sleeping nightly on the streets or in emergency shelters to precarious living arrangements (e.g., staying in hospitals and prisons, doubling-up with friends and family). Over three-quarters of the homeless population are people staying in emergency shelters (Gaetz, Gulliver, & Richter, 2014). Within this group, there is considerable diversity. The vast majority are transitionally homeless (i.e., temporarily staying in shelter for a small number of days and having a small number of episodes of homelessness; Aubry, Farrell, Hwang, & Calhoun, 2013). Approximately 10% or less of people who experience homelessness are episodically homeless, which refers to people who have multiple, short episodes of homelessness. A third group, which represents only 2-4% of the homeless population but accounts for between 27-47% of all emergency shelter stays, is chronically homeless (Aubry et al., 2013; Kuhn & Culhane, 1998). People experiencing chronic homelessness have a small number of episodes of homelessness, which are three months or longer in length. Gaetz et al. (2014) estimated that between 4,000 and 8,000 people experience chronic homelessness each year in Canada.

Mental illness is a pervasive problem among the homeless population. Although prevalence estimates vary greatly – between 15 and 52% (Folsom et al., 2005; Hwang et al., 2011) – it is evident that mental illness is many times more widespread among people who are homeless than the general population (Fazel, Geddes, & Kushel, 2014). Moreover, certain mental disorders are more common than others in the homeless population. In a meta-regression analysis by Fazel, Khosla, Doll, and Geddes (2008), pooled prevalence estimates by mental disorder were: 37.9% for alcohol dependence, 24.4% for drug dependence, 23.1% for personality disorders, 12.7% for psychotic illnesses, and 11.4% for major depression. Rates of mental health and substance use problems also differ between people who are chronically, episodically, and transitionally homeless. Substance use problems have been found to be greater among the former two groups than people experiencing transitional homelessness (Kuhn & Culhane, 1998).

In addition to the high rates of mental illness and substance use, people who are homeless are also at greater risk of experiencing other serious problems. For example, as compared to the non-homeless population, people who are homeless are more likely to develop medical conditions, such as tuberculosis, hepatitis B and C viruses, HIV, diabetes mellitus, skin problems, and poor oral health (Beijer, Wolf, & Fazel, 2012; Hwang, 2001; Hwang & Bugeja, 2006; King & Gibson, 2003; Klinkenberg et al., 2003); be physically and sexually assaulted (Kushel, Evans, Perry, Robertson, & Moss, 2003); be arrested and incarcerated (Greenberg & Rosenheck, 2008); become socially isolated (D'Amore, Hung, Chiang, & Goldfrank, 2001; Lam & Rosenheck, 1999); engage in suicidal behaviours (Prigerson, Desai, Liu-Mares, & Rosenheck, 2003); and die younger (Hwang, 2000; Roncarati et al., 2018). The array of problems that afflict homeless people makes for an acutely vulnerable and heterogeneous population.

Unmet healthcare needs are also common among people experiencing homelessness. Although estimates vary, studies consistently show that over one-third of people experiencing homelessness report one or more unmet healthcare needs (Argintaru et al., 2013; Baggett, O'Connell, Singer, & Rigotti, 2010; Desai & Rosenheck, 2005). Eyecare, dental care, and prescription medications have been found to be the most common unmet healthcare needs (Baggett et al., 2010). Although unmet mental healthcare needs were lower, people with mental illness were 2.6 times more likely to identify it as an unmet need than those without mental health histories. Service unavailability, lack of accommodations, and acceptability of treatment and personal practices are among the most common reported reasons for unmet mental healthcare needs (Duhoix et al., 2017). As such, the range of health problems that can afflict homeless people with mental illness may not be readily alleviated, resulting in high rates of unmet healthcare needs.

Homelessness not only affects the people who experience it but also has societal impacts, such as service system inefficiencies and costs. Overall, inclusive of the use of emergency shelter, social, health, and criminal justice services, homelessness in Canada is estimated to cost between $4.5 and $6 billion annually (Laird, 2007). With regard to healthcare, costs are inflated among people experiencing homelessness as they are more likely to use acute and emergency services than the general population (D'Amore et al., 2001; Fazel et al., 2014; Folsom et al., 2005; Ku, Scott, Kertesz, & Pitts, 2010). In addition, psychiatric hospitalizations of homeless people have been shown to be longer and more expensive than for the general population, likely related to a more severe illness complexity at admission (Hwang, Weaver, Aubry, & Hoch, 2011). The use of these more intensive services is often due to barriers accessing ambulatory or specialist services that could suitably address presenting health problems, placing an unnecessary and expensive burden on health systems (Larkin, Claassen, Emond, Pelletier, & Camargo, 2005; McNiel & Binder, 2006; Wooden, Air, Schrader, Wieland, & Goldney, 2009).

In sum, the homeless population is overrepresented by people with mental illness who are at-risk of a range of other health problems and unmet needs. In addition, homelessness has consequences for service systems due to use of costly, emergency services that may not sufficiently meet people's needs. Given the serious individual and societal impacts, an array of services has been developed to support people experiencing homelessness, including those with mental illness. Accordingly, it is necessary to first outline the health, social, and community services that exist for homeless people with mental illness before then examining factors associated with service use and service use experiences.

## Support Services for People with Mental Illness and Histories of Homelessness

The systems that provide support services to people with mental illness, including those who are homeless, have been transformed over the past century. Deinstitutionalization, which commenced in the United States in the 1960s and 1970s, and in Canada in the 1980s, led to the large-scale closures of psychiatric hospitals across the continent (Sealy & Whitehead, 2004). The consequences of deinstitutionalization were twofold. On one hand, shortages in affordable housing led many people with mental illness to become homeless or live in custodial board-and-care homes and semi-institutional facilities that did not offer treatment needed to move forward in life (Nelson & MacLeod, 2017). However, simultaneously, interventions were developed to better support people with mental illness living in the community during a period when hospital readmission rates from deinstitutionalization were rising (Stein & Test, 1980). Many of the programs that were developed from this period forward form the basis of the community-based service systems for people with mental illness that currently exist.

Early iterations of a comprehensive community support system proposed the following components: [1] client identification and outreach (including transportation assistance), [2] mental health treatment, [3] health and dental services, [4] crisis response services (including inpatient hospital services), [5] housing (supportive housing and homeless residential assistance), [6] income support and entitlements, [7] peer support (self-help and consumer-operated services), [8] family and community assistance and education services, [9] rehabilitation services (social and vocational), [10] protection and advocacy, and [11] case management (Stroul, 1989; Turner & TenHoor, 1978). Later work began to integrate the service system frameworks with ideas arising from the recovery movement. Using the community support system conceptualization, Anthony (1993) linked each fundamental service to a recovery outcome. For example, treatment services provided symptom relief, crisis intervention assured personal safety, rehabilitation improved role functioning, and self-help promoted empowerment.

The community support system model has also been applied specifically to homeless people with mental illness. Levine, Lezak, and Goldman (1986) described a number of adaptations in order to better serve this population, which included: outreach about service availability, basic needs services provided via flexible environments (e.g., drop-in centres), a range of rehabilitative and supportive housing options, education and advocacy, inclusion of natural support systems, and mechanisms to protect citizen rights. Smaller considerations for mental health care, psychosocial services, crisis assistance, and case management were also recommended. However, as Martin (1990) noted, programs offering emergency relief and respite (i.e., outreach services, drop-in centres, and emergency shelters) are overrepresented in systems serving homeless people with mental illness but community support systems need more than this to be effective for this population.

A second framework that was developed during the 1980s detailed the services that comprise a community resource base for people with mental illness (Pomeroy, Trainor, & Pope, 2002). The community resource base, which is described as an essential pillar of recovery, identifies housing, income, work, and education as fundamental components of community support systems to which all citizens should have access (Trainor, Pomeroy, & Pape, 2004). It also acknowledges that, in addition to mental health services, people with mental illness require community services and groups, family and friends, and self-help and peen-run organizations to live full lives in the community.

Despite some differences between them, the models detail the components that are needed to comprise a comprehensive community-based service system for people with mental illness, including those who have experienced homelessness. However, the extent to which the services are universally needed by the population is unknown. For example, in a sample of almost 1,500 homeless people with mental illness, over 90% of participants reported that they needed permanent housing, whereas employment supports and substance use treatment were identified by 55.9% and 27.9%, respectively (Rosenheck & Lam, 1997). Moreover, changes to the service system frameworks are needed to include newer services, such as harm reduction programs. As such, informed by previous models (e.g., Stroul, 1989; Trainor et al., 2004; Turner & TenHoor, 1978), along with other services reflective of topical issues, Table 1 outlines the possible services that people with mental illness and histories of homelessness may use and benefit.[1] This framework will be used to guide the research for this dissertation.

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[1] Criminal justice services, with the exception of legal assistance, were not included in the community-based service system model given that the primary function of this service system is to promote safety within society as opposed to health.

Table 1. Community-based support service framework for housed and homeless people with mental illness.

| Service Domain | Types of Services |
|---|---|
| Housing and basic needs | ▪ affordable housing (permanent housing with and without attached support)<br>▪ housing supports (assistance with finding or sustaining housing)<br>▪ emergency shelters<br>▪ meal programs and soup kitchens<br>▪ street outreach<br>▪ identification services |
| Social services | ▪ income supports, including rent supplements and rent banks<br>▪ drop-in centres, including warming/cooling centres<br>▪ food banks<br>▪ public transportation<br>▪ legal aid<br>▪ immigration services<br>▪ family, school, and childcare services<br>▪ pet supports |
| Health services | ▪ hospital-based services (emergency departments, inpatient units, outpatient clinics, day treatment)<br>▪ harm reduction programs (managed alcohol programs, needle/crack pipe exchange, opioid substitution therapy, supervised consumption/overdose prevention sites)<br>▪ medication management and pharmacies<br>▪ walk-in clinics<br>▪ community health centres<br>▪ community-based health teams (assertive community treatment, intensive case management, psychiatric outreach)<br>▪ telephone services (crisis lines, Telehealth)<br>▪ psychotherapy and counselling<br>▪ self-help and peer support<br>▪ family doctors and nurse practitioners<br>▪ dentists<br>▪ dieticians and nutritionists<br>▪ public health departments in municipal government |
| Community services | ▪ libraries<br>▪ faith and spiritual institutions<br>▪ community centres<br>▪ organized activities (advocacy/political, recreational)<br>▪ neighbourhood resources and activities |
| Work and education supports | ▪ education supports<br>▪ employment supports<br>▪ training programs |

## Service Use among People with Mental Illness and Histories of Homelessness

Of the many health, social, and community services have been developed to meet the needs of homeless people with mental illness, some are used more than others. For example, emergency shelters, meal programs and soup kitchens, drop-in centres, housing support services, emergency departments, and inpatient hospitalizations are used frequently by this population (Acosta & Toro, 2000; Folsom et al., 2005; Kuno, Rothbard, Averyt, & Culhane, 2000; Pollio, North, Thompson, Paquin, & Spitznagel, 1997). In contrast, outpatient treatment and employment supports have been shown to be less accessed, which may be due to lack of availability and accessibility barriers (Folsom et al., 2005; Pollio et al., 1997). However, service use is shaped by a variety of individualistic and societal factors (Andersen & Newman, 2005). This section will first define service use and then review the literature to determine the factors that affect people's use of services. Further, qualitative research examining experiences of treatment and care, which is recognized as an integral aim of service systems intending to promote health and well-being (Berwick, Nolan, & Whittington, 2008), will also be reviewed.

### Defining Service Use

Despite health services research being a vast, multidisciplinary field of applied science, definitions of "service use" are relatively few, with little discussion as to what it entails (Kerman, Sylvestre, & Polillo, 2016). Traditional definitions focus on the behavioural interaction between a service user and provider (Donabedian, 1973), suggesting that service use is fundamentally a transactional experience. However, such an interpretation omits any nuance with regard to service use, such as whether or not service use is intentional or helpful. Given these limitations, it necessary to unpack service use to understand how it occurs. Service use involves actions taken on the parts of individuals who: access the resources (service users with or without direction from authorized parties), make the resources available (service agencies, funders), or deliver the services (service providers). From this perspective, for service use to occur, action must take place at each of these levels. In cases of involuntary service use, a need may be identified by other involved parties, such as health professionals or substitute decision makers, who have the authority to take action on behalf of the service user. In those instances, authorized parties – not service users – take goal-directed actions to access services.

There are two components of service use. First, steps are taken by individuals – service user or other authorized party – to use a service (to make use of), which are the actions and processes that precede service uptake, such as the purpose or decision to use a service. In addition, steps taken by an individual to use a service also reflect previous action by various stakeholders to make that service available to be used (e.g., service agencies and funders put in place the necessary resources to enable people to make use of a service). The second component of service use is the uptake (services are used). This refers to the exchange between service user and provider, in units of the used resource (e.g., dollars, time, physical goods). Where possible, this dissertation will use this conceptualization of service use, as it offers a more layered process than that of past definitions, which will be helpful for understanding people's experiences using services and the role of services in exiting homelessness, staying stably housed, and helping people to live meaningful lives in the community.

### Predictors of Service Use among Homeless People with Mental Illness

Service use is the product of multiple societal and individual determinants, as well as the resources and organization of service systems (Andersen & Newman, 2005). The behavioural model of health service utilization (Andersen, 1968, 1995) is the most widely used model for predicting health service use. It contends that service use is a product of predisposing (e.g., demographic characteristics, social structure, health beliefs), enabling (e.g., personal, family, and community resources), and need factors (e.g., perceived and evaluated need). Although the behavioural model overlooks societal forces that may shape service use, it offers preliminary insights into some of the individual determinants that may affect service use for people experiencing homelessness.

*Need* characteristics, which reflect a person's need for care, are theorized by the model as necessary for service use to occur (Andersen, 1995). The evidence is mixed as to the effectiveness of this set of factors in predicting service use by people experiencing homelessness. In a study of almost 4,000 homeless adults with mental illness, self-reported need for services was positively related to use of medical, psychiatric, and substance abuse services (Lemming & Calsyn, 2006). Need factors were also the strongest predictors of medical and psychiatric service use in studies by Linton and Shafer (2014) and Koegel, Sullivan, Burnam, Morton, and Wenzel (1999), as well as of use of medical services (Tam, Zlotnick, & Bradley, 2008) and emergency departments (Padgett, Struening, Andrews, & Pittman, 1995).

Recent research from the At Home/Chez Soi demonstration project (Goering et al., 2011) provides somewhat contradictory findings. Currie, Patterson, Moniruzzaman, McCandless, and Somers (2014) investigated the factors associated with high and low use of primary care (family doctor, nurse, dentist, or pharmacist) and specialist health services (specialist physician, psychologist, psychiatrist, other mental health providers). Findings showed that higher levels of need were not associated with service use. High users of primary care services were more likely to have lower mental illness severity and multiple physical illnesses, whereas high users of specialist health services were more likely to be experiencing a major depressive episode and less likely to have a blood-borne infectious disease.

Currie et al.’s (2014) findings may be inconsistent with previous research for a couple reasons. First, use was studied as a measurement of volume as opposed to receipt or non-receipt as was the case in the previous studies. Second, the need factors that were studied were not fully congruent with the types of services used (i.e., those in need of psychiatric treatment may not visit a primary healthcare service to receive it) – a fairly common limitation in the analytic application of the behavioural model. Nonetheless, the studies’ findings suggest that self-reported perceived need for a health service is likely the strongest predictor of the need factors for use of that service. Other need-related factors may also be associated with service use among homeless people with mental illness but the evidence remains equivocal at this point.

Research on the behavioural model has minimally examined the use of non-health services by homeless people with mental illness. Lemming and Calsyn (2006) found that perceived need was positively associated with use of public support services but not housing support services (i.e., assistance provided to find or maintain housing). Given that homelessness, by definition, is the result of not having housing yet need was unrelated to service use, the findings suggest other factors beyond need may affect service use by this population.

*Enabling* factors are conditions that facilitate or impede the use of services, such as income, health insurance, regular source of care, and social support (Andersen, 1995). The importance of enabling factors in predicting service use by homeless people with mental illness appears to be relatively low. Several studies have found few or no significant predictors within this domain (Currie et al., 2014; Koegel et al., 1999; Tam et al., 2008).

Social support is the exception. Social support from professionals was a significant predictor in the studies by Lemming and Calsyn (2004, 2006). Natural support (i.e., perceptions of, satisfaction with, and frequency of contact with supportive persons, such as family and friends) was also found to be a significant predictor of some types of service use but not others. Lam and Rosenheck (1999) also found some types of social support (having close family relationships, support to attend a service or help in an emotional crisis) but not others (amount of contact with friends) to be positively correlated with health and social service use. In contrast, Koegel et al. (1999) found that social support did not predict mental health service utilization. Taken together, formal services are not intended to be a substitute for social support but rather a complement (Lam & Rosenheck, 1999). Given that homeless people with mental health problems are socially isolated (Padgett, Henwood, Abrams, & Drake, 2008) and report low levels of emotional support (Hwang et al., 2009), support from professionals may be a contributing factor to individuals using services.

The third component of the behavioural model is *predisposing* factors, which are existing conditions that increase the likelihood of, but are not directly responsible for, service use or nonuse (Andersen & Newman, 2005). These may include factors such as demographics, health beliefs and values, social structure, sexual orientation, and childhood characteristics (Gelberg, Andersen, & Leake, 2000). Among homeless people with mental illness, research suggests that predisposing factors appear to have the smallest role in service use. Neither Koegel et al. (1999) nor Tam et al. (2008) found any of the predisposing factors to be significant predictors of service use, with the former study examining mental health treatment, and the latter looking at medical care and service use for basic needs. Lemming and Caslyn (2006) also did not find any predisposing variables to be predictors of housing or public support service use but did find male gender to be related to use of medical services, as well as an inconsistent relationship (i.e., significant at one time point but not another) with substance use services. Education was also positively correlated with the use of medical and psychiatric services.

Recent research from the At Home/Chez Soi demonstration project also supports a minimal relationship between service use and predisposing factors. Currie et al. (2014) found that multiple hospitalizations for mental illness in the past five years were the only predisposing factor that significantly predicted high specialist health care visits. In addition, no predisposing factors were significant predictors of high primary health service use. However, in a previous study by Patterson, Somers, and Moniruzzaman (2012), individuals who had visited a family doctor or psychiatrist in the past six months were significantly less likely to have been homeless for three years or more in their lives compared to those who had been homeless for less than three years. Individuals who received psychiatric services were also less likely to ever have an episode of homelessness that lasted longer than one year. Despite the mixed evidence, the findings suggest that factors related to people's histories of homelessness and past mental health service involvement may affect service use. Nonetheless, differences in the applications of the behavioural model and examined services make it difficult to draw any firm conclusions or achieve a clearer understanding of the relationship between service use and predisposing factors.

Finally, although not a formal component of the behavioural model, use of other types of services has been examined in some studies and is a key predictor of service use for homeless people with mental illness – consistent with research on the homeless population more generally (e.g., Rhoades et al., 2014). Research by Tam et al. (2008) predicting behavioural health, medical care, and basic needs service use among a sample of homeless women with mental illness found use of other services was a significant predictor in all analyses. Similarly, use of homelessness and substance abuse services have also been shown to be significant predictors of lifetime mental health treatment among homeless adults, though the finding was not replicated with recent use of mental health services (Pollio, North, Eyrich, Foster, & Spitznagel, 2003). Moreover, earlier work by Koegel et al. (1999) found that homeless adults with mental illness who received help from non-treatment service providers were more likely to also receive mental health treatment. Help from non-treatment service providers was also a significant predictor of substance use treatment among homeless adults with problematic substance use. As concluded by Tam et al. (2008), linkage between different service sectors and more integrated delivery systems may help better meet the needs of homeless people with mental health problems.

Overall, the literature suggests that homeless mentally ill service users may be more likely to: perceive a need for the services that they are accessing, receive social support from service providers, and also use other services. These predictors of service use appear to be fairly robust across different types of health, social, and community services. However, with regard to other factors that may predict service use by this population, the results are either mixed or have lacked replication. Because of this, it is not yet feasible to predict who, among people experiencing homelessness and mental illness, will use services. Further, the research has principally used the behavioural model, which neglects broader cultural and social environment factors (e.g., social security, transportation, environment). As the effects of broader systems on service use by the homeless mentally ill population have not been studied, research on service experiences can help to elucidate some of the environmental factors that may affect service use.

## Experiences of Service Use

The experiences that people have when accessing and using services may be a key factor in explaining continued or future use or nonuse of services. Study findings suggest that how a service is delivered may be more important to service users experiencing homelessness than the nature of the service (see Table 2 for a summary of study findings). One critical aspect of service experiences is interactions with service providers. Research has demonstrated that, along with perceived helpfulness, people have positive service experiences when they are treated well by service providers who they view as compassionate and supportive (Davis, Tamayo, & Fernandez, 2012; Kerman, Gran-Ruaz, Lawrence, & Sylvestre, 2019; Padgett et al., 2008; Voronka et al., 2014).[2] However, across the homeless population, negative experiences with service providers are widely reported (e.g., Applewhite, 1997; Darbyshire, Muir-Cochrane, Fereday, Jureidini, & Drummond, 2006; De Rosa et al., 1999; Kidd, 2003; Sznajder-Murray & Slesnick, 2011). Perceptions of mistrust, discrimination, and power imbalances between service providers and users are several factors that can yield negative experiences and may impede the development of supportive relationships with service providers (Bhui, Shanahan, & Harding, 2006; Kerman et al., 2019; Patterson, Currie, Rezansoff, & Somers, 2015; Voronka et al., 2014).

Relationships with other service users can also affect service experiences by increasing or decreasing feelings of safety (Kerman et al., 2019). Concerns related to safety have been widely identified as a factor leading to nonuse of emergency shelters and drop-in centres (Abramovich, 2012; De Rosa et al., 1999; Johnsen, Cloke, & May, 2005; Nettleton, Neale, & Stevenson, 2012). Frequent conflict or victimization among service users is associated with negative experiences. In contrast, programs that enable people to connect to relatable peers are perceived positively (Kerman et al., 2019).

Services that provide assistance with basic needs, such as housing, income, and employment, are perceived positively (Kerman et al., 2019; Padgett et al., 2008; Patterson et al., 2015; Voronka et al., 2014). Relatedly, assistance with service system navigation and accessing needed services has been highlighted (Davis et al., 2012; Kerman et al., 2019). Although services that helped people to address unmet basic needs were linked to positive experiences, systemic

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[2] The study by Kerman et al. (2019) used data from Study 3 of this dissertation.

barriers and organizational constraints could impede intended outcomes. For example, limited shelter capability (Thompson, Pollio, Eyrich, Bradbury, & North, 2004), long wait lists for affordable housing (Bhui et al., 2006), and organizational rules and restrictions (Kerman et al., 2019; Padgett et al., 2008; Patterson et al., 2015; Thompson et al., 2004; Voronka et al., 2014) are associated with negative experiences.

The consequences or implications of positive and negative service experiences for people experiencing homelessness and mental illness are minimally understood. Padgett et al. (2008) conducted one of the few studies to examine how service experiences affect engagement and retention in behavioural health services. From the findings, a model was developed that theorizes that acts of kindness, opportunities to access and obtain housing, and pleasant surroundings had positive influences on engagement and retention, whereas rules and restrictions, and a lack of one-on-one therapy had negative impacts, contributing to termination of treatment. Beyond this, no further research has been conducted on the role of health or social service experiences among homeless people with mental illness. As a result, there is a critical need for further research in this area to examine key outcomes associated with service use, such as the extent to which these experiences help people to exit homelessness, improve quality of life, and promote recovery.

Table 2. Qualitative research on the factors associated with positive and negative service experiences for adults with mental illness and histories of homelessness.

| Publication | Type of Service | Experience | Factors |
|---|---|---|---|
| Thompson et al. (2004) | Emergency shelters | Negative | ▪ Agency rules<br>▪ Space limitations in shelter |
| Bhui et al. (2006) | Specialist homeless teams | Mixed | ▪ Helpful but inconvenient (having to talk to multiple social workers on the team) |
| Bhui et al. (2006) | Health and social services | Negative | ▪ Inaccessible or insufficient during crises<br>▪ Mistrust and disagreement with service providers<br>▪ Waiting lists for housing<br>▪ Language barriers and the need for interpreters<br>▪ Decentralization of and travel to services |
| Padgett et al. (2008) | Behavioural health services | Positive | ▪ Acts of kindness<br>▪ Opportunities to access and obtain housing<br>▪ Pleasant surroundings |
| Padgett et al. (2008) | Behavioural health services | Negative | ▪ Rules and restrictions<br>▪ Lack of one-on-one therapy |
| Davis et al. (2012) | Intensive case management | Positive | ▪ Supportive relationships with case managers<br>▪ Service system navigation |
| Voronka et al. (2014) | Mental health and social services | Positive | ▪ Recovery-oriented services, including help to access employment, education, and financial supports<br>▪ Service providers who listened, were compassionate, and advocated for service users with other professionals |
| Voronka et al. (2014) | Mental health and social services | Negative | ▪ Service refusal due to substance use or non-adherence to medications<br>▪ Service providers who lacked compassion, offered book-learned advice instead of help from the heart, ignored power imbalances in treatment and care, and expected service users to be grateful of support<br>▪ Involuntary hospital admissions and treatment, including medications |
| Patterson et al. (2015) | Health and social services | Mixed | ▪ Service providers are instrumental to exiting homelessness<br>▪ Institutional bureaucracy<br>▪ Discrimination due to mental illness and substance use<br>▪ Distrust of hospitals, psychiatric care, and prescribed medications |
| Kerman et al. (2019) | Health, social, and community services | Mixed | ▪ Level of accessibility of services<br>▪ Characteristics and approach of service providers and agencies, including organizational rules and policies<br>▪ Relationships with other service users<br>▪ Quality, design, and atmosphere of service's physical space<br>▪ Outcomes of service use, including feelings and any met/unmet basic needs |

## Exiting Homelessness and Staying Housed

One of the objectives of many health, social, and community services that comprise the community-based support service framework is to help people experiencing homelessness to become housed. Some services may directly assist in this work (e.g., providing housing, assisting with housing applications), whereas others have indirect roles (e.g., connecting people to other services that specialize in housing). Ultimately, the effectiveness of services in helping people to exit homelessness is shaped by a range of impeding and facilitating factors. This section will first provide an overview of the barriers to exiting homelessness to provide context as to the challenges that people may experience when using services to obtain housing. Facilitators will then be reviewed, with a focus on Housing First, an evidence-based intervention for housing people with mental illness who are chronically homeless. Although other interventions have also been found to be effective in helping people exit homelessness (for a review, see Hwang & Burns, 2014), it is necessary to review the evidence on Housing First given its presence in the studies of this dissertation (i.e., Studies 1 and 2 use data from a randomized controlled trial of Housing First and approximately 35% of housed participants in Study 3 were living in a Housing First program).

### Systemic Barriers to Exiting Homelessness

Lack of affordable housing is one of the foremost impediments to exiting homelessness (Gaetz et al., 2014; Moore & Skaburskis, 2004; Wusinich, Bond, Nathanson, & Padgett, 2019). For people with mental illness, many of whom are unable to work full-time due to the episodic nature of their illnesses, disability social assistance rates are too little to obtain market rent housing (Trainor et al., 2013). Additionally, housing on its own is often insufficient for meeting the needs of people with mental illness; supplementary treatment and support may be essential to help people to stay stably housed and live productive lives in the community (Padgett, Henwood, & Tsemberis, 2016). For this reason, the barriers to acquiring affordable housing are made worse when support services are unavailable or nonexistent in the community.

Homeless people with mental illness also experience discrimination from landlords (Bhui et al., 2006; Piat et al., 2015). Although rates of discrimination due to homelessness are unknown, approximately 30% of people with a serious mental illness report having experienced discrimination in housing in their lives (Corrigan et al., 2003). As a result, the few affordable housing options that are available to homeless people with mental illness may be even more difficult to obtain due to housing-related stigma and discrimination.

Fragmentation and lack of coordination of service systems is another issue that creates barriers to getting access to services and continuity of care (Calloway & Morrissey, 1998; Campbell, O'Neill, Gibson, & Thurston, 2015; Geller, 2015; Krausz et al., 2013). Because of the separation between health and social service systems, homeless people are forced to navigate separate systems to address their housing and health needs. Moreover, people experiencing homelessness are often forced to choose between competing needs, such as health, housing, or immediate basic needs (Baggett et al., 2010; Desai & Rosenheck, 2005; Gelberg et al., 2000). When people do not have time or know where to go for services, they are more likely to not receive services or turn to acute services that are more accessible (Kim et al., 2007; Uscher-Pines, Pines, Kellermann, Gillen, & Mehrotra, 2013).

A final systemic barrier to exiting homelessness is related to social unmet needs that are not addressed by service systems and what people do in response to this. The social processes associated with becoming homeless have been theorized to contribute to people's entrenchment on the streets (Grigsby, Baumann, Gregorich, & Roberts-Gray, 1990). This occurs in one of two ways. The first is the result of a continued loss of social support that may have commenced prior to people's becoming homeless, which causes isolation and dysfunction. When this occurs, not only does mental health suffer from the social isolation but people may become less likely to seek programs or services that may be necessary to exiting homelessness (Lam & Rosenheck, 1999). The second pathway that leads to a person's entrenchment on the streets and chronic homelessness is through an affiliation with other people who are homeless. This course provides human connection and strengthens social networks that may have weakened during the process of becoming homeless but also further embeds people within the street culture (Grigsby et al., 1990). Both paths involve service systems not addressing the social needs of people experiencing homelessness, which steers them away from services and increases their risk of becoming chronically homeless.

## Facilitators to Exiting Homelessness and Staying Housed

All paths out of homelessness involve housing. Beyond this, a range of interpersonal, community, and structural/interventional factors are associated with sustainment of housing tenure following homelessness. A systematic review by Boland, Slade, Yarwood, and Bannigan (2018) found that the facilitators with the greatest support were evidence-based interventions, such as Housing First; social support from family and support workers; and older age. As such, there is overlap between some of the barriers and facilitators to exiting homelessness, such as social capital, suggesting possible opportunities for intervention. Other factors linked to maintaining housing included: sense of control, involvement in meaningful activities, community integration and participation, neighbourhood characteristics (e.g., proximity to resources, access to public transportation), and income supports. Lastly, findings were mixed as to the relationship between mental illness and staying housed. Several studies found no relationship, whereas other studies found positive associations for mood and psychotic disorders, and one study found a negative relationship between housing attainment and interpersonal difficulties as a symptom of mental illness. Substance use was consistently negatively associated with staying housed after exiting homelessness (Boland et al., 2018).

For people with mental illness, there may be some unique considerations with regard to effectively managing mental health symptoms that are helpful for exiting homelessness and staying housed. However, the majority of their support needs are no different than anyone else experiencing homelessness or living in poverty. Income supports, services to enhance food security, mental health services, access to a family doctor, employment supports, and life-skills training have been most commonly reported by people with mental illness as helpful to finding, accessing, and sustaining housing, though many other services were also needed for some individuals (Kerman, Eckerle Curwood, Sirohi, & Trainor, 2013). Further, a qualitative study of people with mental illness living in poverty, including homelessness, found that supportive relationships, part-time employment, education, increases to income support rates, and reduced substance use were each identified as facilitators of greater financial stability (Forchuk et al., 2017). Overall, a range of services and supports are likely helpful for addressing the diverse and complex support needs of people experiencing homelessness. In particular, evidence-based interventions, such as Housing First, provide services and supports that can assist people experiencing homelessness to rapidly become housed.

## Housing First

Housing First is a supported housing intervention that was developed in the early 1990s by Pathways to Housing to help chronically homeless adults with mental illness to exit homelessness.[3] Since then, there has been widespread implementation of the Housing First model across North America and it is now a key component of strategies to end homelessness (e.g., Employment and Social Development Canada, 2018). Given its important role in service systems and as a service examined by the studies of this dissertation, it is necessary to review the outcomes of Housing First. Accordingly, this section will provide an overview of Housing First and review the evidence of how the intervention affects housing stability, behavioural health and quality of life, and service use.

Housing First involves the provision of scattered-site apartments with accompanying delinked community-based supports and rent supplements so that tenants do not pay more than 30% of their income on rent. Delinked housing and support enables tenants to move to new housing and keep their existing supports. Support is provided to tenants via assertive community treatment (ACT) or intensive case management (ICM; Stefancic, Tsemberis, Messeri, Drake, & Goering, 2013). ACT consists of an interdisciplinary team of professionals who, using a problem-solving orientation, provide a range of intensive services, including assistance with medication, housing, and income (Bond, Drake, Mueser, & Latimer, 2001). The primary goals of ACT are to: help people to stay in contact with services and integrate them into their communities; lower hospital admission rates; and improve outcomes, such as social functioning and quality of life (Bond et al., 2001). As for ICM, like case management more broadly, the intervention pairs individuals to case managers who provide a range of services, such as

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[3] In addition to being a formal housing model, Housing First is also an approach to housing. This dissertation will focus only on Housing First as a model but see Aubry, Ecker, and Jetté (2014) for more information on Housing First as an approach.

outreach, assessment, monitoring, referrals, advocacy, and social support (Solomon, 1992). In contrast to other forms of case management, the primary feature of ICM is small caseloads (i.e., 10-15 clients per case manager; Solomon, 1992).

**Outcomes of Housing First: housing stability.** Housing First programs are very effective in stably housing most people experiencing homelessness and mental illness. A systematic review by Woodhall-Melnik and Dunn (2016) on the effectiveness of Housing First found that all studies showed the intervention was associated with a high level of housing stability. On average, between 77% and 85% of tenants remain housed after 1-2 years in Housing First (Padgett et al., 2016). Newer research continues to find housing outcomes associated with the intervention to be above 70% (e.g., Aubry et al., 2015, 2016; Brown, Jason, Malone, Srebnik, & Sylla, 2016).[4] In addition, Housing First is effective for housing various subpopulations of people experiencing homelessness and mental illness. Most notably, homeless adults with co-occurring mental and substance use disorders have similar housing outcomes as people without substance use problems (Cherner, Aubry, Sylvestre, Boyd, & Pettey, 2017; Palepu, Patterson, Moniruzzaman, Frankish, & Somers, 2013; Urbanoski et al., 2018).

Although Housing First is effective in housing many people experiencing homelessness and mental illness, there is an urgent need to understand more about the types of people for whom the intervention does not work. Research by Volk et al. (2016) examined the characteristics of individuals who were unstably housed after one year in Housing First. However, the findings accounted for only a very small amount of variance in the final model.

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[4] Variation in study findings are likely partially due to differences in the measurement of housing stability/retention.

Using the same dataset, Adair et al. (2017) examined predictors of housing stability over 24 months. Although different trajectories of housing stability were identified, the authors cautioned that their findings not be used to determine who will and who will not benefit from Housing First. Thus, the results of the two studies suggest that there may be predictors of housing instability in Housing First but reliably determining who will need additional support is currently infeasible.

**Outcomes of Housing First: behavioural health and social outcomes.** The effects of Housing First on health status are mixed and in need of further research. The systematic review by Woodhall-Melnik and Dunn (2016) analyzed three studies that examined mental health outcomes; however, given the differences in study samples, methods, and geography, it was unclear whether Housing First led to greater improvements in mental health relative to treatment as usual. More recent research suggests that the intervention may not yield improvements in mental health outcomes, as participants in Housing First and treatment as usual reported similar changes in their mental health over a one- and two-year period (Aubry et al., 2015, 2016; Stergiopolous et al., 2015).

As for substance use, generally, changes in substance use problems after receipt of Housing First do not differ compared to treatment as usual or other housing programs (Aubry et al., 2015, 2016; Padgett, Gulcur, & Tsemberis, 2006; Tsemberis, Gulcur, & Nakae, 2004). However, some studies have found lower rates of substance use in Housing First compared to housing programs that have sobriety requirements prior to housing entry (e.g., Padgett, Stanhope, Henwood, & Stefancic, 2011). Nevertheless, as Housing First uses a harm reduction approach, the goal is not necessarily to help tenants to reduce their substance use but rather to prevent or limit negative consequences related to substance use (Collins, Clifasefi et al., 2012; Henwood, Padgett, & Tiderington, 2014). Because of this, harm-related changes in substance use are an important outcome of Housing First. In a nonrandomized trial of Housing First for people with problematic alcohol use, the frequency of delirium tremens within the past month decreased from 65% to 23% after 24 months in Housing First, with gradual reductions also in the odds of not drinking to intoxication (Collins, Malone et al., 2012). Moreover, implementing a managed alcohol program within the Housing First model and discouraging tenants from purchasing non-beverage alcohol products reduced harms associated with substance use (Collins, Clifasefi et al., 2012).

As for social outcomes, the effects of Housing First are limited. Loneliness and isolation are common experiences reported by Housing First tenants (Watson, Fossey, & Havey, 2018) but are not voiced as major concerns by all (Piat, Sabetti, & Padgett, 2018). Further, tenants have described a desire to balance privacy and connection to others, which can yield more isolated lives (Watson et al., 2018). With regard to employment and income, Poremski et al. (2016) found that the employment rates among Housing First and treatment as usual participants were similar over a two-year period. In addition, Housing First did not lead to any significant changes in monthly income. Housing First may yield slight improvements in food security; however, approximately one-third of Housing First tenants did not achieve high or marginal food security over an 18-month period (O'Campo et al., 2017).

**Outcomes of Housing First: service use.** Housing First has been shown to have a range of impacts on the use of other services. First and foremost, the provision of housing with support produces drastic reductions in the use of emergency shelters. This is partially observed in the previously described increases in housing stability rates; however, studies that have examined use of emergency shelters prior to confirm this (e.g., Hanratty, 2011; Henwood et al., 2015). As for health services, Housing First has been shown to change people's patterns of service use. A review of permanent supportive housing (most but not all studies examined Housing First programs) found robust evidence of reductions in the use of emergency departments and inpatient admissions (Rog et al., 2014). Studies omitted from the review and newer research mostly add further evidence that Housing First yields reductions in emergency department use and inpatient hospitalizations (Gilmer, Manning, & Ettner, 2009; Gilmer, Stefancic, Ettner, Manning, & Tsemberis, 2010; Russolillo, Patterson, McCandless, Moniruzzaman, & Somers, 2014; Srebnik, Connor, & Sylla, 2013). In contrast, Aubry et al. (2016) did not find any differences between Housing First and treatment as usual in hospitalization rates or use of emergency departments over a two-year period, though Housing First participants initially exhibited greater decreases in emergency department visits. Of note, as the studies aggregated emergency department use and inpatient hospitalizations, it is unknown whether there are significant changes in the reasons for use (e.g., mental health, substance use, medical/surgical).[5] In contrast to the decreased use of emergency and acute health services, Housing First is associated with increased use of outpatient and case management services. Gilmer et al. (2009) found threefold and eighteenfold increases in costs related to use of outpatient and case management services, respectively, during the two years before and after Housing First entry.

Mental health service use patterns following entry into Housing First appear to be consistent with the changes in inpatient and outpatient hospital services. Gilmer et al. (2010)

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[5] Russolillo et al. (2014) examined reasons for emergency department use but did not perform any statistical tests. Descriptive statistics suggest that there may be an increase in visits to the emergency department for otorhinolaryngological reasons and a decrease for skin-related issues.

found increases in medication management, psychiatric rehabilitation treatment, and psychotherapy and counselling in the year after entry into Housing First. Compared to a residential continuum program, Housing First tenants had similar levels of general mental health service use, though the two groups differed at the 48-month timepoint, with service use being lower for the Housing First group (Padgett et al., 2006). As for substance use treatment, rates of service use have been found to be lower within Housing First compared to residential continuum programs wherein treatment may be a requirement for housing (Padgett et al., 2006, 2011; Tsemberis et al., 2004). However, Padgett et al. (2006) found service use to be stable over four years within the Housing First group, whereas Tsemberis et al. (2004) found use decreased over 24 months. Use of residential treatment programs has also been found to decrease following entry into Housing First (Henwood et al., 2015). Similarly, Housing First is also associated with less use of detoxification services (DeSilva, Manworren, & Targonski, 2011; Srebnik et al. 2013). Among people receiving opioid substitution therapy, Housing First has been shown to enhance treatment retention rates; slightly more than half of Housing First tenants were still receiving methadone maintenance three years after program implementation compared to one-fifth of participants in a comparison group (Appel, Tsemberis, Joseph, Stefancic, & Lambert-Wacey, 2012).

**Outcomes of Housing First: summary.** Overall, Housing First is effective in stably housing a large majority of people with mental illness, including those experiencing chronic homelessness. However, the effects of the intervention on health and social outcomes are limited, raising concerns about the well-being of tenants and their ability to work toward recovery-related life goals. As for service use, research has demonstrated that Housing First is associated with reductions in the use of emergency and acute health services, which is partially explained by the intervention facilitating access to outpatient services. However, beyond this, research has not addressed the impacts of Housing First on other service domains, such as social services (e.g., food banks, drop-in centres, income supports), nor has the role of services in helping formerly homeless people with mental illness to stay stably housed within the community been fully explored. Moreover, it is unknown what factors are responsible for the observed housing, health, and service use outcomes (Benston, 2015). This limitation is particularly problematic given that there appears to be a subset of homeless people with mental illness for whom Housing First is not effective (Adair et al., 2017; Volk et al., 2016). The gaps underscore the need for further research but also raise questions as to what are the other factors that may affect, even mediate, whether homeless people with mental illness have positive or negative outcomes in housing.

## Recovery

The popularity of the term "recovery" has grown exponentially in the last several decades. Mental health action plans at all levels (e.g., Canada's *Changing Directions, Changing Lives* and Ontario's *Open Minds, Healthy Minds*; Government of Ontario, 2011; Mental Health Commission of Canada, 2012) now identify the delivery of recovery-oriented services as a key goal to achieving improved mental health systems. However, recovery remains a concept that is complex and contested. Because of this, it is necessary to unpack the term to understand the various perspectives and their implications for service delivery.

There are two principal viewpoints on recovery: recovery *from* versus recovery *in* mental illness (Davidson & Roe, 2007). The former, which is also known as clinical recovery, draws from early conceptualizations that were clinically-based around the amelioration of symptoms and impairments associated with the mental illness. From this perspective, achievement of recovery is synonymous with positive mental health, represented by a return to pre-illness or ‘normal’ level of functioning. Recovery *in* mental illness, which is also referred to as social recovery, represents a divergent viewpoint. It asserts that recovery involves overcoming the consequences and lingering effects associated with mental illness (e.g., poverty, unemployment, homelessness or inadequate housing, isolation, effects of involuntary psychiatric treatment) and attaining some degree of control over one’s life (Davidson, O’Connell, Tondora, Lawless, & Evans, 2005). The role of mental illness is either one part or absent altogether in this view of recovery, highlighting that recovery is a personal and unique process that looks different for different people (Anthony, 1993).

There is also disagreement on the components of recovery. However, a recent review by Ellison, Belanger, Niles, Evans, and Bauer (2018) highlights a central set that are commonly included in conceptualizations. Among the most common aspects of recovery were empowerment, purpose, hope, self-direction, connectedness to others, respect, community connectedness, symptom management and healthy lifestyle choices, and personal responsibility. Further, most reviewed studies acknowledged that recovery was non-linear and that there were many recovery paths. The common components identified by Ellison et al. (2018) are not exclusive to any one conceptualization of recovery, though symptom management is likely less common in the non-clinical notions of recovery. Of note, the Substance Abuse and Mental Health Services Administration [SAMHSA]’s (2012) working definition of recovery includes home (i.e., having a safe and stable place to live) as a newly added dimension of recovery. However, only approximately one-third of the studies in the review by Ellison et al. (2018) recognized the role of housing as a component of recovery. Yet, without stable housing, people with mental illness may struggle to attain a sense of control, and the freedom to plan ahead and make choices in their lives (Kirst, Zerger, Wise Harris, & Plenert, & Stergiopoulos, 2014).

Given the many life adversities faced by people with mental illness who are homeless, Padgett, Tiderington, Smith, Derejko, and Henwood (2016) proposed the concept of "complex recovery," which refers to the cumulative adversities and disadvantage that this population has experienced in life. As such, this conceptualization uses a life course perspective to not only consider the consequences associated with mental illness that people may be overcoming but also those of other adverse life events. Because formerly homeless people with mental illness have experienced, on average, approximately nine adverse events in their lives, including incarceration, past suicidal attempt or suicidal thoughts, and parent abandonment, the adversities in which people are recovering from may extend far beyond only substance use, serious mental illness, and homelessness (Padgett, Smith, Henwood & Tiderington, 2012).

For the purpose of the studies that comprise this dissertation, a recovery *in* mental illness conceptualization was used.[6] Because recovery is a very individualized process, clinical improvement was not viewed to be necessary for recovery. However, it may be a component, even the crux, of people's recovery processes. In this way, the conceptualization is consistent with the perspective that recovery takes different forms for different people and is a personal experience toward achieving a full and meaningful life, the success of which can be measured in terms of outlook on life, and development of and progress toward achieving personal goals. Additional elements, such as obtaining employment, having a home, establishing strong

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[6] The study by Padgett, Tidington et al. (2016) was not yet published when this dissertation was proposed and data collection for the research began. As such, a more traditional conceptualization of recovery in the context of mental illness and substance use was used.

relationships, and developing a sense of awareness and control over one's mental health symptoms, may be less common yet essential for recovery for some people.

**Recovery-oriented services and service use.** Accompanying the emergence of the recovery movement has been a paradigm shift in the outcomes targeted by mental health services. Aligned with ideas from the community mental health field, the primary goals of mental health services changed from maintenance of functioning and crisis prevention to the promotion of hope, healing, empowerment, and connection (Jacobson & Greenley, 2001). Different frameworks have been put forth for how to integrate recovery into mental healthcare service systems but the most common approaches include the provision of individualized/person-centred, strengths-based, culturally competent, and trauma-informed treatment and care (Ellison et al., 2018). However, the adoption and uptake of recovery principles and practices within healthcare systems serving people with mental illness have not been fully actualized. Moreover, there has been a lack of integration of recovery principles into traditional homelessness services despite evidence from promising practices, such as Housing First, ACT, and ICM, that suggest homeless populations can benefit from recovery-oriented services (Gillis, Dickerson, & Hanson, 2010). Overall, there is a general consensus of the key elements that contribute to a service's recovery orientation but many mental health and related services remain in a period of transition toward the adoption of more recovery-oriented principles and practices.

No study to date has examined the relationship between service use and recovery for homeless people with mental illness. Among related populations, the evidence is comparably nonexistent. One exception to this was an exploratory study by Resnick, Rosenheck, and Lehman (2004) of over 800 people with schizophrenia that sought to develop a model of factors associated with a recovery orientation. Recovery was measured in four domains: satisfaction with life, hope, knowledge, and empowerment.[7] Results demonstrated that knowledge about mental illness and services was most frequently correlated with service use. Having a social worker or case manager, having a therapist, receiving crisis intervention services, attending a day hospital program, having family who were receiving psychoeducation, and receiving legal assistance were each positively associated with knowledge. Families' receipt of psychoeducation was also positively correlated with the hope and empowerment domains of recovery. Use of crisis intervention services was also negatively associated with hope. The findings offer a preliminary understanding of the relationship between recovery and mental health service use, including that there may be one.

Lietz, Lacasse, Hayes, and Cheung (2014) also explored the relationship between mental health service use and recovery. The qualitative study of adults with serious mental illness examined the ways in which services helped to facilitate the process of recovery. Findings revealed that services can promote recovery by establishing safety; facilitating self-determination; utilizing a humanizing, individualized approach to care; fostering hope; validating experiences; promoting positive thinking and esteem; and offering services grounded in shared experience.

Overall, the results by Resnick et al. (2004) and Lietz et al. (2014) offer some evidence of a relationship between recovery and mental health service use but it is unknown whether the findings would generalize to people with mental illness who are experiencing homelessness and

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[7] Life satisfaction, one of the domains of recovery examined by Resnick et al. (2004), is an indicator of quality of life, which is a separate but related construct to recovery (Ellison et al., 2018). Because of this, the study's findings on life satisfaction are not presented here.

how other services (e.g., community, social, medical) may affect recovery. Further, it is important to not overextend the relationship between recovery and mental health service use given that recovery may be achieved without the use of services. Slade et al. (2014) went further in their assertion that it is a misuse of the term “recovery” to contend that services can make people recover through effective treatment. Similarly, Deegan (1996) contended that mental health services provide rehabilitation but are insufficient on their own for helping people to achieve recovery. This perspective can be applied to other types of services as well, such as those for social or vocational rehabilitation, in that they may be helpful to people in the recovery process but something more – something personal – is required. The different ideas on the extent to which services affect recovery highlight the need to better understand their relationship among people with mental illness, including for those with histories of homelessness.

## The Capabilities Approach

Developed by Amartya Sen and Martha Nussbaum, the capabilities approach offers a framework for determining well-being and theorizing about social justice (Nussbaum, 2011). Capabilities are freedoms to engage and participate in social activities and roles given people’s capacities and opportunities, as well as environmental constraints (Shinn, 2015). The approach makes a distinction between capabilities and functionings. Capabilities are freedoms to achieve a level of functioning or well-being, whereas functionings are the actualized levels of one or more capabilities that are achieved (Sen, 1995). For example, a person who has access to food but chooses to fast has the freedom to eat, whereas a person who is starving without access to food does not. The capabilities of the two people in the example differ yet their level of functioning is the same. The difference is important, as the goals of the capabilities approach are to promote the freedoms of equality and choice, not functionings (Nussbaum, 2011).

Table 3. Central human functional capabilities

| Capability | Description (Nussbaum, 2000; Shinn, 2015) |
|---|---|
| Life | Having the opportunity to live a normal human life and not die prematurely |
| Bodily health | Being able to have good health, as well as having access to adequate nutrition and shelter |
| Bodily integrity | Being able to maintain bodily integration, and having freedom of mobility, security against assault, and opportunities for sexual satisfaction and reproductive choice |
| Control over one's environment | [A] Political: Being able to effectively participate in the political choices that affect one's life and having freedom of association; [B] material: having the right and opportunity to hold property |
| Practical reason | Having the ability to critically reflect on and plan one's life, and to engage in meaningful social roles |
| Affiliation | [A] Self-respect and non-humiliation: having the social bases of self-respect and non-humiliation; [B] living with and toward others: being able to live in relationship to others |
| Other species | Having the freedom to live with plants and animals |
| Senses, imagination, and thought | Having the ability to feel, imagine, and think, and the freedom of self-expression and religious exercise |
| Emotions | Having the ability for emotional experience and expression |
| Play | Having the ability to laugh, play, and enjoy recreational activities |

There are 10 capabilities that Nussbaum (2000) argued are of central importance to any human life, regardless of what people pursue and choose to do with their lives (for descriptions of each capability, see Table 3). People with mental illness, including those who are homeless, have historically been denied many of the capability freedoms outlined by Nussbaum (2010) – a problem that continues to persist today. For example, as Shinn (2014) noted, people with mental illness who have been subjected to involuntary hospitalization and medication are denied the capability of bodily integrity. Affordable housing storages and low social assistance rates are other domains where capabilities are being inhibited, as people are forced to live in poverty or without shelter altogether (Benbow, Rudnick, Forchuk, Edwards, 2014). Moreover, as lack of identification is a common problem among people experiencing homelessness (Campbell et al., 2015; Khandor & Mason, 2007), this may impede people's capabilities to exercise legal citizenship, voting in elections, and access healthcare (Sylvestre, 2017; Sylvestre, Notten, Kerman, Polillo, & Czechowski, 2018).

Given the relevance of capabilities to the problems experienced by people with mental illness, the approach has been proposed as a way of measuring transformative change in the mental health system. From a capabilities perspective, goals of mental health services "should not be to reduce symptoms or to promote health or even empowerment but to maximize the real freedoms that people enjoy to live their lives as they see fit" (Shinn, 2014, p. 75). This is in contrast to recovery-oriented goals of service provision in which empowerment is central, and symptom management and health promotion are common. Further, the recovery approach emphasizes people *taking* control over their own lives, whereas the capabilities approach posits the importance of people *having* choice to take control. As such, Sylvestre et al. (2018) argued that the individual-level changes associated with recovery are insufficient to overcoming the structural barriers that marginalize and exclude people with mental illness.

The capabilities approach offers a holistic set of standards by which systemic responses to homelessness and mental illness could strive to achieve. However, applications of the capabilities approach to mental health and social service systems are few aside from illustrative examples of Housing First by MacLeod (2014) and Shinn (2014, 2015). Given the many systems that serve people with mental illness, there is a need to examine whether or not these programs enhance capabilities (Hopper, 2007). As such, undertaking research to understand how services foster or impede the capabilities of homeless and housed people with mental illness is a necessary step to determining the potential of the capabilities approach with this population. In doing so, consideration must also be given to recovery values and outcomes, as there may be opportunities for amalgamation of the two theories into a single framework, which addresses citizenship and health in a way that does not simply enable people to survive but one that allows them to thrive in life (Hopper, 2007).

## Overview of Current Research

Health, social, and community services can play a critical role in helping people with mental illness to obtain housing and exit homelessness (Kerman et al., 2013; Patterson et al., 2015; Thompson et al., 2004). Once housed, people's patterns of service use have been shown to change, with greater use of outpatient services and less reliance on emergency departments and inpatient hospitalizations. Despite the consistency of the findings, very little is known about the effects of the service use changes, including if and how people benefit from their changed patterns of service use. For example, it is unknown whether different patterns of service use are associated with housing stability. Understanding the differences in service use as people go from homelessness to housing and vice versa will be important to identifying patterns of service use that may be associated with increased risk of housing instability or a return to homelessness.

Housing intervention research, including studies of Housing First, has principally been concerned with examining how well the studied programs address the most pressing need of homeless people with mental illness: housing. Although other outcomes have been studied, such as service use, health and well-being, relationships, and involvement in meaningful activities, there have been calls to study the effects of housing and support programs in other domains, such as recovery (e.g., Aubry et al., 2014; Kerman et al., 2016). The role of services in fostering recovery is contested but, because there has been very minimal research on this relationship, further work is needed to understand how services may affect recovery.

This dissertation addresses the dearth of knowledge on the role of services in the lives of currently and formerly homeless people with mental illness. Three studies were conducted using two datasets that addressed two research questions: [1] How do patterns of service use differ during transitions from homelessness to housing compared to those from housing to homelessness among people with mental illness? and [2] What is role of services in enhancing the lives of housed and homeless people with mental illness? The services examined in this dissertation were guided by the community-based support service framework (see Table 1).

The first research question was addressed in Study 1, which used data from a multisite randomized controlled trial of Housing First in Canada known as the At Home/Chez Soi demonstration project (for more information on the trial, see Goering et al., 2011). Using data from participants in both the intervention and treatment as usual groups, the study explored how service use patterns over 24 months differed among people who achieved housing stability compared to those who remained unstably housed or re-experienced housing instability during the second year of the study.

Two studies, one quantitative and one qualitative, explored the second research question. Study 2 again used quantitative data from the At Home/Chez Soi demonstration project to investigate the relationship between service use and recovery among homeless people with mental illness. Hierarchical multiple regressions were performed to examine the extent to which an adapted version of SAMHSA’s (2010) four-dimensional framework of recovery that included service use and integrated components applicable to the experience of homelessness was predictive of recovery for people experiencing homelessness. Using a pragmatic perspective, the third study of this dissertation qualitatively explored how currently and formerly homeless people with mental illness view services in their lives, in particularly with regard to furthering recovery (Study 3, Part 1) and promoting capabilities (Study 3, Part 2). In-depth interviews were conducted with 52 participants living in Ottawa, Ontario, half of whom were currently experiencing homelessness and the other half of whom were formerly homeless. A semi-structured interview guide was developed to explore people's perceptions of positive and negative experiences using services, and the role of services in helping or not helping them to recover and promote capabilities. All three studies were reviewed and received ethics approval by the University of Ottawa's research ethics board (see Appendices A, B, and C).

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# The Effects of Housing Stability on Service Use among Homeless Adults with Mental Illness in a Randomized Controlled Trial of Housing First

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# Abstract

Housing First is an effective intervention to stably house and alter service use patterns in a large proportion of homeless people with mental illness. However, it is unknown whether there are differences in the patterns of service use over time among those who do or do not become stably housed and what effect, if any, Housing First has on these differing service use patterns. This study explored changes in the service use of people with mental illness who received Housing First compared to standard care, and how patterns of use differed among people who did and did not become stably housed. The study design was a multi-site randomized controlled trial of Housing First, a supported housing intervention. 2,039 participants (Housing First: *n* = 1,131; standard care: *n* = 908) were included in this study. Outcome variables include nine types of self-reported service use over 24 months. Linear mixed models examined what effects the intervention and housing stability had on service use. Participants who achieved housing stability, across the two groups, had decreased use of inpatient psychiatric hospitals and increased use of food banks. Within the Housing First group, unstably housed participants spent more time in prison over the study period. The Housing First and standard care groups both had decreased use of emergency departments and homeless shelters. The temporal service use changes that occurred as homeless people with mental illness became stably housed are similar for those receiving Housing First or standard care, with the exception of time in prison. Service use patterns, particularly with regard to psychiatric hospitalizations and time in prison, may signify persons who are at-risk of recurrent homelessness. Housing support teams should be alert to the impacts of stay-based services, such as hospitalizations and incarcerations, on housing stability and offer an increased level of support to tenants during critical periods, such as discharges.

## Background

Mental illness is a pervasive problem among people who are chronically homeless. Given the high prevalence of mental health problems, as well as the increased risks of developing medical conditions while homeless, there is frequent use of hospital and crisis services by this population (D'Amore, Hung, Chiang, & Goldfrank, 2001; Fazel, Geddes, & Kushel, 2014; Folsom et al., 2005; Gallagher, Andersen, Koegel, & Gelberg, 1997). In addition, psychiatric hospitalizations of homeless people are longer and more expensive than for the general population, likely related to their presenting at admission with more severe and complex psychiatric illnesses (Hwang, Weaver, Aubry, & Hoch, 2011). The use of these more acute services is often due to barriers accessing ambulatory or specialist services in the community that could suitably address presenting health problems, placing an unnecessary and expensive burden on health systems (Larkin, Claassen, Emond, Pelletier, & Camargo, 2005; McNiel & Binder, 2005; Wooden, Air, Schrader, Wieland, & Goldney, 2009).

Housing First is an evidence-based intervention that involves the provision of scattered-site housing with a rental subsidy and accompanying support without any pre-conditions for eligibility (e.g., there are no requirements about abstinence from substance use or existing involvement with mental health services; Aubry, Ecker, Jetté, 2014). Support services are provided through Assertive Community Treatment (ACT) teams or case managers. However, to promote choice, tenants may receive as much or as little support as they choose and may even refuse services all together (Tsemberis & Eisenberg, 2000). Research on the model has demonstrated that Housing First is effective in stably housing a large majority of homeless people with mental illness. Recent studies by Aubry et al. (2015, 2016) found that 73% and 71% of participants who received Housing First with ACT support were stably housed at 12 and 24 months, respectively. At both time points, the percentage of Housing First participants who were stably housed was significantly greater than those who received standard care. Similarly, 78% of individuals receiving Housing First with Intensive Case Management (ICM) were stably housed for 50% of the time or more between 12 months and 24 months compared to only 39% of the time for a standard care group (Stergiopolous et al., 2015). These findings are consistent with those from other past studies (Stefancic & Tsemberis, 2007; Tsemberis & Eisenberg, 2000; Tsemberis, Kent, & Respress, 2012).

The Housing First intervention also affects homeless adults' use of other services. First, given that Housing First is associated with increased rates of housing stability, it also produces drastic reductions in the use of homeless shelters (e.g., Hanratty, 2011; Henwood et al., 2015). As for mental health services, Housing First has been shown to change patterns of service use. Reductions in emergency department visits and hospitalizations are the service domains where the evidence is strongest (Brown, Jason, Malone, Srebnik, & Sylla, 2016; Rog et al., 2014). Less research has focused on the use of outpatient mental health services following housing entry. However, in a quasi-experimental study of Housing First, individuals who received the intervention had significantly greater outpatient mental health service use in all domains (case management, medication management, and therapy/rehabilitation) in the year after becoming housed (Gilmer, Stefancic, Ettner, Manning, & Tsemberis, 2010). The study, which also found reductions in inpatient service use, suggests that Housing First may facilitate more appropriate use of less-intensive mental health resources that better fit the needs of individuals (Gilmer et al., 2010). Lastly, Housing First is known to affect people's interactions with the criminal justice system, with a recent systematic review finding strong evidence that the intervention is effective in reducing arrests and incarcerations (Woodhall-Melnik & Dunn, 2016).

Overall, Housing First is effective in stably housing a large majority of people with mental illness and reducing burden on service systems through greater uptake of outpatient services and less reliance on acute and institutional services. However, very little is known about the people who do not achieve housing stability via the Housing First model and experience recurrent homelessness. A recent study examined differences among people who do and do not achieve housing stability in the first year of tenancy via Housing First (Volk et al., 2016). Findings showed that participants who did not become stably housed were more likely, at baseline, to: have a psychotic disorder, feel more psychologically integrated into their communities, report higher quality of life, and have spent more time in prison in recent months. Although these predictors of housing stability were significant, the strength of association was relatively small for all variables.

From the same study, Adair et al. (2017) examined housing trajectories over a 24-month period across treatment groups (i.e., Housing First and standard care participants were merged together). Findings showed that participants who remained unstably housed had longer histories of homelessness but fewer hospitalizations at baseline than those who became stably housed early on. Further, compared to the unstably housed group, participants who had early success in housing but later lost their housing were more likely to have greater psychiatric symptoms and more past hospitalizations. However, because the studies only examined baseline predictors of housing stability (Adair et al., 2017; Volk et al., 2016), it is unclear how the groups differed once housed. In particular, it is unknown whether individuals who become stably housed display different patterns of service use over time than those who encounter difficulties and what effect, if any, Housing First has on differing service use patterns. This study sought to advance the limited evidence on the characteristics of people who experience difficulties in Housing First by exploring their patterns of service use and comparing them to individuals who become successfully housed by the intervention. A greater understanding of the patterns of service use that are associated with successful community living and ones that may be risk factors for recurrent homelessness will be valuable for determining how Housing First tenants can be better supported.

### Current Study

Using 24-month longitudinal data from a randomized controlled trial (RCT) of Housing First conducted in Canada, this study examined two research questions. First, how does service use by people who do and do not become stably housed change over time? It is hypothesized that, as participants become stably housed, they will have fewer hospitalizations and time spent in prison, as well as less use of emergency departments and crisis services, shelters, and drop-in centers. In contrast, use of outpatient hospital services and food banks will increase. Among participants who struggle to become stably housed, or experience difficulties once housed and become recurrently homeless, it is expected that their use of health services, and drop-in centers will remain unchanged, whereas amount of time spent in shelters and prisons will increase.

The second research question is: What impact does Housing First have on the service use patterns of people who do and do not become stably housed? It is hypothesized that participants' housing stability will have a stronger relationship with changes in service use over 24 months and that Housing First will minimally affect service use patterns.

## Methods

### Design

This study used data from the At Home/Chez Soi demonstration project, a RCT that was conducted in five Canadian cities (Moncton, Montreal, Toronto, Vancouver, and Winnipeg).

Participants were randomly assigned to receive either Housing First (with support via an ACT or ICM model) or standard care. Data were collected from October 2009 to June 2013, with each participant being followed for a maximum of 24 months. Participants were recruited from community service organizations, including shelters, drop-in centres, street outreach teams, and health clinics, as well as directly off the street. For more information about the trial design, see the published protocol (Goering et al., 2011).

**Study Participants**

Data were obtained from 2,255 individuals who met the following trial inclusion conditions: [1] either had a recent diagnosis of a mental illness or met criteria for a current mental disorder, as determined by the Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1997); [2] lived in Moncton, Montreal, Toronto, Vancouver, or Winnipeg; [3] were homeless at study entry (defined as having no fixed address, or having used homeless shelters for one or more nights in the previous month); and [4] were 18 years of age or older (19+ in Vancouver). All participants provided written consent.

Because changes in service use can occur quickly after obtaining housing, participants were also required to be unstably housed at baseline (50% or fewer days in stable housing in previous three months) – the point at which initial data were also collected on service use. Using this criterion, 148 individuals who had spent more than 50% of time in stable housing at their baseline assessments were deemed not to be unstably housed and excluded from this study. An additional 68 individuals withdrew prior to 24 months and were not included in data analysis. The final sample comprised of 2,039 participants (see Figure 1).

## Intervention

**Housing First.** Participants who were randomly assigned to the intervention group received housing and support via the Housing First model. The model includes rent subsidies; choice around housing and support; and apartments via the private rental market, though some individuals were offered housing via other settings (e.g., social housing; Goering et al., 2014). A small number of Housing First participants at the Vancouver site were randomized to a congregate, supportive housing model (more information about the third arm intervention is published elsewhere; Currie, Moniruzzama, Patterson, & Somers, 2014).

Housing First participants received support services via either ACT teams or ICM. ACT teams included a psychiatrist, nurse, social worker, and peer specialist, as well as other clinicians. Services were available around the clock, seven days per week, and the teams' staff to participant ratios were 1:10. Individuals with moderate needs received ICM, whereas those with high needs were provided ACT. Participants were determined to have high needs if they met one of the following conditions: a score within the severe or medium disability range on the Multnomah Community Ability Scale (MCAS; Barker, Barron, McFarland, & Bigelow, 1994), a MINI diagnosis of a psychotic or bipolar disorder, a comorbid substance use disorder, two or more hospitalizations within a single year during the past five years, or involvement with the criminal justice system within the previous six months. ICM involved teams of case managers with staff to participant ratios that did not exceed 1:16 and the provision of services 12 hours a day, seven days a week.

**Standard care.** Participants who received standard care had access to all of the existing housing and support services offered in their communities other than from the Housing First programs. As the trial took place in five cities across Canada, the programs available to participants in this group likely differed as a function of their location.

### Measures

Assessments comprised of questionnaires that were completed in an interview format with participants every three or six months over a 24-month period. This study primarily used data collected from two scales: Health, Social, and Justice Service Use Inventory (Mental Health Commission of Canada, 2010); and Residential Time-line Follow-back (Tsemberis, McHugo, Williams, Hanrahan, & Stefancic, 2007). The former was administered every six months, whereas the latter was completed every three months. In addition, data from the Demographics, Service, and Housing History (Mental Health Commission of Canada, 2010); MCAS (Barker et al., 1994); and Global Appraisal of Individual Needs–Substance Problem Scale (GAIN-SPS; Dennis, Chan, & Funk, 2006) were used to describe the sample at baseline. Details about how these three measures were used in the trial can be found in the published protocol (Goering et al., 2011).

The Health, Social, and Justice Service Use Inventory (HSJSU) is a self-report questionnaire that was used to assess use of health, social, and justice services in the previous six months. Within these service domains, data are collected on volume of use, name of service, and purpose of use. For this study, data on volume of use of the following types of services were analyzed: outpatient hospital programs, overnight hospital stays (non-emergency department, and not including laboratory or diagnostic tests), emergency departments, crisis lines, crisis teams, drop-in centers, and food banks. Use of justice services, as assessed by the HSJSU, were not examined in this study. The HSJSU was developed for the RCT and it previously underwent pre-testing and piloting to ensure that individuals with serious mental illness do not experience difficulties with the recall items (Goering et al., 2011). Also, its accuracy was tested at the Vancouver site by comparing self-reported service use on the measure to service use from an administrative database. There was moderate to almost perfect correspondence between the data for psychiatric hospitalizations, emergency department visits, and time spent in prison (Somers et al., 2016).

The Residential Time-line Follow-back (RTLFB) was used to assess housing histories in the previous three months, with the exception of the initial assessment, which occurred at the three-month time point and examined the previous six months (i.e., three months before and after baseline). The RTLFB collects information on each type of residence lived in during that period and the number of days spent there. The residences are then categorized as either a street place, stable residence, temporary or unstable residence, emergency or street crisis location, or institution. This study used data from two categorizations: stable residences and institutions. Stable residences were defined as stays in any of the following locations: own single room occupancy hotels, own apartment or house, apartment or house of a family member or of someone else for an intended stay duration of six or more months, boarding house, transitional housing program for an intended stay duration of six or more months, or a group home (Tsemberis et al., 2007). Use of several institutional services assessed by the RTLFB were examined as part of this study. These included days spent in hospital (i.e., overnight, non-emergency department; psychiatric hospital, general hospital for psychiatric purposes, and general hospital for medical purposes), homeless shelters, and prison. The RTLFB was developed and validated for use with the homeless population. It has adequate two-week, test-retest reliability; has adequate concurrent validity, as assessed through correlations between housing agency and self-reports; and is sensitive to change in residential stability (Tsemberis et al., 2007).

### Data Analysis

A series of linear mixed models were conducted that each had three fixed factors – [1] time, [2] intervention, and [3] housing stability. The fixed factor of time had three levels (baseline, 12 months, and 24 months) and represented the points at which service use data are analyzed. Intervention comprised of two groups (Housing First or standard care). No comparisons were made between Housing First participants who received ACT and those who received ICM. The third factor, housing stability, comprised of four groups: sustained housing stability, late housing stability, sustained housing instability, and late housing instability. Housing stability was computed using modified procedures by Volk and colleagues (2016). Following baseline, housing stability was determined by the proportion of time spent in stable housing accommodations over 12 months. More than 50% was considered to be stably housed. However, if participants had spent 100% of their time in stable housing in the previous 3 months, they were categorized as stably housed, regardless of their housing accommodations in the prior nine months. These procedures produced indicators of housing stability at 12 months and 24 months. Participants who were stably housed at both 12 and 24 months were determined to have achieved sustained housing stability, whereas individuals who were unstably housed at those two time points were classified as having sustained housing instability. Late housing stability participants are those who were initially unstably housed at 12 months but stably housed by 24 months. In contrast, late housing instability refers to participants who were stably housed at 12 months but became unstably housed by 24 months.

The dependent variables in the mixed models were nine unique types of service use. The types of service use were: [1] emergency departments (visits); [2] overnight hospital stays for medical reasons (days); [3] overnight hospital stays for psychiatric reasons (days); [4] outpatient hospital programs (visits); [5] specialized crisis services (calls to crisis lines and visits by crisis teams); [6] drop-in centers (visits); [7] homeless shelters (days); [8] food banks (visits); and [9] prisons (days). Because service use was assessed in six-month intervals, to generate values that were comparable to baseline, scores at 12 and 24 months were mean ratings of the previous year (i.e., combined data from two time points). To balance statistical error rates, Bonferroni corrections were applied to all pairwise comparisons within each linear mixed model, as opposed to adjustments across the total number of statistical tests. Using a software-adjusted Bonferroni computation, alphas ≤ .05 were considered to be significant. To measure effect sizes, adjusted standardized mean differences were computed for all significant pairwise comparisons and two-level main effects following procedures by Borenstein, Hedges, Higgins, and Rothstein (2009).

Missing data were generally low, ranging from 3-15%; however, when determinations of overall housing stability were merged across time points, 389 (19.1%) participants were missing data on the independent variable. To evaluate the effects of the missing data, a sensitivity analysis was performed using 20 multiply imputed datasets that had a predictive mean matching algorithm. Following guidelines by Graham (2009) to reduce bias in multiple imputation procedures, models comprised of 85 variables involved in the study's analyses and an additional 50 auxiliary predictor variables. Data augmentation involved a total of 4,000 steps (200 iterations per imputation). Consistency between the complete case analysis and pooled multiple imputation results was assessed by measuring the degree of overlap in the estimated confidence intervals between the two analyses. Where results from the complete case analysis were consistent with the multiple imputation analysis, only the former are presented. Where results from the two analyses deviated, findings from both are discussed. All statistical analyses were performed using SPSS 24.

## Results

The characteristics of the sample at baseline are displayed in Table 4. Adjusted mean ratings of use for the nine service domains by intervention condition and housing stability are listed in Table 5. No significant differences in characteristics or service use at baseline were found between the Housing First and standard care groups.

### Use of Health Services

Visits to the emergency department in the previous six months declined over time for all groups ($p < .001$). A significant decrease occurred from baseline to 12 months (adjusted standardized mean difference [ASMD] = 0.15, $p < .001$, 95% CI = 0.08-0.22), and this change from baseline was maintained at 24 months (ASMD = 0.21, $p < .001$, 95% CI = 0.13-0.28). A significant main effect was also found for housing stability ($p = .01$). Follow-up comparisons showed that late housing instability participants had greater use of emergency departments across the two-year study period than those who experienced sustained housing instability (ASMD = 0.12, $p = .02$, 95% CI = 0.01-0.23) or sustained housing stability (ASMD = 0.11, $p = .01$, 95% CI = 0.02-0.20). No differences were found by intervention. As for use of specialized crisis services in the previous six months, no changes were observed across time for any group.

Findings showed a significant interaction between time and housing stability ($p < .001$) for days spent in hospital for psychiatric reasons in the previous three months. Sustained stably housed participants had a significant decrease in their psychiatric hospital stays from baseline to 12 months (ASMD = 0.16, $p < .001$, 95% CI = 0.07-0.24). This change from baseline was maintained at 24 months (ASMD = 0.23, *p* < .001, 95% CI = 0.12-0.33). Late stably housed participants also had decreased use of psychiatric hospital services from baseline to 24 months (ASMD = 0.21, *p* = .04, 95% CI = .01-0.41). No changes were observed among sustained or late housing instability participants. As for medical hospitalizations in the previous three months, no significant changes were found over the two-year period for any group.

Use of outpatient hospital services in the previous six months was generally low across the study period, with less than two visits on average for most groups (see Table 5). Participants in the standard care condition had higher use of outpatient services than did those in the Housing First condition (*p* < .001; pairwise comparison: ASMD = 0.08, *p* < .001, 95% CI = 0.04-0.11). Further, there was a main effect of housing stability (*p* < .01), with follow-up comparisons showing that sustained housing stability participants had higher usage of outpatient hospital services than individuals who experienced sustained housing instability (ASMD = 0.08, *p* < .01, 95% CI = 0.02-0.15) or late housing instability (ASMD = 0.07, *p* = .04, 95% CI = 0-0.14). No significant changes were found for any group over time.

### Use of Community Services

There was a significant interaction between time and housing stability for use of homeless shelters in the previous three months (*p* < .001). All groups displayed decreased use at 12 months (sustained housing stability: ASMD = 0.56, *p* < .001, 95% CI = 0.48-0.64; late housing stability: ASMD = 0.32, *p* < .001, 95% CI = 0.17-0.47; sustained housing instability: ASMD = 0.22, *p* < .001, 95% CI = 0.11-0.33; late housing instability: ASMD = 0.56, *p* < .001, 95% CI = 0.32-0.79). This continued to significantly decrease further from 12 to 24 months for the sustained housing stability (ASMD = 0.20, *p* < .001, 95% CI = 0.09-0.30), late housing stability (ASMD = 0.45, *p* < .001, 95% CI = 0.27-0.62), and sustained housing instability groups

(ASMD = 0.11, $p < .001$, 95% CI = 0.01-0.20). Only late housing instability participants showed no further change.

There was also a main effect of intervention on use of homeless shelters ($p < .01$), with standard care participants having greater use of homeless shelters than the Housing First group (ASMD = 0.06, 95% CI = 0.02-0.10). However, the estimated parameters of the complete case analysis for standard care participants ($M = 19.35$, SE = 0.77, 95% CI = 17.84-20.86) differed greatly from that of the sensitivity analysis ($M = 17.64$, SE = 0.67, 95% CI = 16.32-18.96). Given the directionality of change in the mean, caution is needed in the interpretation of this main effect.

Visits to drop-in centers in the previous six months declined over time for all groups ($p = .001$). Pairwise comparisons for the full sample showed a significant decrease from baseline to 24 months (ASMD = 0.07, $p = .03$, 95% CI = 0.01-0.13). Use of drop-in centers also significantly differed as a function of housing stability and intervention ($p = .02$). Follow-up pairwise comparisons showed that, among sustained stably housed participants, use was higher for those who received Housing First compared to standard care (ASMD = 0.07, $p = .05$, 95% CI = 0-0.14).

An interaction effect between time and housing stability was present for use of food banks in the previous six months ($p = .03$). Follow-up analyses showed significant changes among the sustained housing stability ($p < .01$) and late housing stability groups ($p = .01$). In particular, sustained stably housed participants displayed increased use from baseline to 12 months (ASMD = 0.13, $p < .01$, 95% CI = 0.03-0.23). Use of food banks for this group at 24 months remained significantly higher than baseline (ASMD = 0.03, $p = .01$, 95% CI = -0.05-0.11). As for the late housing stability group, they also showed an increase in their use of food banks but this was more gradual over time, with a significant change only occurring between baseline to 24 months (ASMD = 0.18, $p < .01$, 95% CI = 0-0.36).

## Use of Prisons

A three-way interaction effect between time, intervention, and housing stability was found for days spent in prison in the previous three months ($p < .001$; see Figure 2). Follow-up linear mixed models conducted separately by intervention condition showed that, for the Housing First group, there was a significant interaction between time and housing stability ($p < .001$). Pairwise comparisons revealed that sustained unstably housed participants had significantly increased time in prison from baseline to 12 months (ASMD = 0.69, $p < .001$, 95% CI = 0.35-1.03), and then again between 12 and 24 months (ASMD = 0.34, $p = .02$, 95% CI = 0.05-0.63). Although the parameter estimates of the complete case analysis for sustained housing instability participants in the Housing First group at 24 months ($M = 22.72$, $SE = 1.27$, 95% CI = 20.24-25.21) moderately diverged from those of the sensitivity analysis ($M = 20.23$, $SE = 1.38$, 95% CI = 17.52-22.94), the magnitude of the effect, as well as the consistency of the statistical findings between the complete case analysis and each individual imputation give confidence in the pattern of findings.

Late unstably housed participants in the Housing First condition also had increased time in prison between 12 and 24 months (ASMD = 0.69, $p < .001$, 95% CI = 0.41-0.98). Overall, the change from baseline to 24 months was a significant increase as well (ASMD = 0.61, $p < .001$, 95% CI = 0.29-0.92). As for late stably housed participants who received Housing First, a significant drop in the amount of prison days was observed between 12 and 24 months (ASMD = 0.35, $p < .01$, 95% CI = -0.14-0.42). No significant changes in days spent in prison were observed for sustained stably housed participants.

The second linear mixed model, which was conducted with standard care participants, revealed a significant main effect of housing stability ($p < .001$). Pairwise comparisons showed that time in prison among sustained unstably housed participants was significantly higher than those who experienced sustained housing stability (ASMD = 0.27, $p < .001$, 95% CI = 0.16-0.38) or late housing stability (ASMD = 0.28, $p < .001$, 95% CI = 0.18-0.38). No significant temporal changes in prison time were observed for participants in the standard care condition.

## Discussion

Study findings showed that, as homeless people with mental illness became stably housed, their psychiatric hospitalizations decreased, and that use by individuals who experience sustained or late (i.e., recurrent) housing instability remained unchanged. In addition, though visits to the emergency department decreased for all groups, stably housed participants had lower rates overall. As for community services, for sustained and late stably housed participants, their use of food banks increased, whereas their use of homeless shelters and drop-in centers decreased. The changes in health and social service use as homeless people with mental illness become stably housed is further evidence that housing stability can reduce burden on service systems that is caused by higher use of acute services. However, because unstably housed participants also displayed reduced use of emergency departments, homeless shelters, and drop-in centers, housing stability is not a prerequisite for changing use of all health and social services. Nevertheless, supporting tenants to become stably housed should remain the priority of service providers, as this will likely facilitate reduced use of intensive and acute health and social services.

The similarities in health and social service use between the Housing First and standard care conditions in this study suggest that housing stability may be a mediating factor in many of the service use outcomes previously found with the intervention. As previous studies have investigated housing stability and service use as outcomes (Rog et al., 2014), their interconnectedness has been overlooked. Given that Housing First has been shown to produce superior housing stability outcomes compared to standard care (Aubry et al., 2015, 2016; Stergiopolous et al., 2015; Stefancic & Tsemberis, 2007; Tsemberis & Eisenberg, 2000; Tsemberis et al., 2012), this has led to conclusions that the intervention produces the observed service use changes when in actuality it may principally be that people's housing stability produced by Housing First is responsible for the new patterns of service use. Future studies on the relationship between housing stability and service use in the context of Housing First is needed, as it will have key implications for the minority of homeless people with mental illness who struggle to become stably housed in Housing First. Such research should also investigate how Housing First affects access to services, which was not examined in our study. Given that use of one service can facilitate access to another (Unick et al., 2011), it is possible that the accompanying support provided to Housing First tenants via ACT or ICM may facilitate timely and appropriate access to other community health and social services. In this way, though housing stability is key to changing service use patterns, Housing First may effect greater change in people's access to services.

The minimal differences in service use outcomes between Housing First and standard care participants is inconsistent with past research. In particular, studies have found that Housing First is associated with greater use of outpatient resources (Gilmer et al., 2010), yet our findings showed that the standard care condition had greater use of hospital-based outpatient services than the Housing First group. This may be due to the specificity of the studied service, as use of ambulatory services at community clinics would not have been accounted for. Moreover, Housing First participants' use of ACT or ICM support was not examined, and these services may have been primary sources of care for this group. Still, the finding may suggest that any increased use of outpatient services that is observed following entry into a Housing First program may be from use of community-based services rather than hospital-based ones. Examining sources of outpatient service use following Housing First entry is necessary to achieve a better understanding of how the intervention alters use of this type of service. Another notable difference between the intervention groups was in use of drop-in centers. For sustained housing stability participants, use was higher among those that received Housing First than standard care. Given that some people in Housing First models report difficulties with isolation (Polvere, Macnaughton, & Piat, 2013), drop-in centers may be an outlet for social connection. A greater understanding of how other community services, such as drop-in centers, can complement Housing First would be particularly beneficial for future program planning and development.

Food banks were one type of service in which participants who became stably housed had increased use. In the context of Housing First, this finding suggests that, although the intervention helps people to exit homelessness, it does not fully resolve the associated consequences of poverty, including food security. Connections to vocational supports and food banks, as well as access to social assistance and disability benefits may be facilitated (Macnaughton et al., 2016) but people continue to live on low incomes that are insufficient or barely sufficient for getting by. As the scaling up of Housing First continues, consideration should be given to the integration of additional services to address new challenges faced by tenants after homelessness. Given that more than half of Housing First tenants who want to return to work are willing to explore individual placement and support opportunities (Poremski

& Hwang, 2016), coupling supported employment with supported housing may further help people with mental illness to exit poverty.

Unlike use of most health and social services, time spent in prison was a domain where the Housing First and standard care groups differed significantly as a result of participants' housing stability. These findings suggest that any ongoing involvement in the legal system or continued criminal activity may be a key risk factor to achievement of housing stability within the Housing First model. For this reason, prioritization of tenants' legal needs and provision of support via the ACT or ICM teams may further improve the intervention's housing stability outcomes. The ACT support model has been modified for use with forensic populations and these adaptations (e.g., having law enforcement and probation officers on the ACT team, recruiting criminal justice sector agencies as partners, targeting recidivism prevention as a primary outcome, having specialized risk assessments; Lamberti, Wiesman, & Faden, 2004; Marquant, Sabbe, Van Nuffel, & Goethals, 2016) may be particularly helpful in supporting some Housing First tenants to become stably housed. Our findings also suggest that making Housing First services readily available to individuals being discharged from prisons could prevent their homelessness.

## Limitations

Several limitations were present in this study. First, despite the overall large sample size, a small proportion of participants were stably housed in the first 12 months but unstably housed in the last 12 months (i.e., late housing instability), especially within the Housing First condition. As a result, statistical power to identify three-way interactions may have been insufficient. However, as one was found for use of prisons, large effects were still discernable. Second, recruitment did not involve the random selection of participants from those individuals referred to the trial. However, information about the study was disseminated to a wide range of health, social, community, and correctional service agencies in order to obtain a sample that was representative of the adult homeless population in each city where the trial was being conducted. Third, this study did not account for use of services provided via the ACT and ICM teams among Housing First participants. The support teams may have affected use of services, particularly mental health services accessed via hospital settings. Moreover, because Housing First participants were randomized to receive ACT or ICM based on their level of need, the trial design limits further examination of the impacts that the support teams can have during the critical, first two years in housing. Fourth, because service use data was self-reported, the information may not accurately reflect participants' service use. However, in a subsample of the one used in this study, Somers et al. (2016) found that participants reliably reported their overall use of health and justice services, offering confidence in the accuracy of data in this study. Lastly, the two-year study period represents a time of adjustment and settling in for many homeless people with mental illness. The long-term impacts of housing stability on service use remain unknown and require further study.

## Conclusions

Overall, findings show that, as homeless people with mental illness become stably housed, their use of a range of services changes. Moreover, temporal changes were largely similar between the Housing First and standard care groups, suggesting that people's housing stability is a key factor contributing to many of the observed changes in service use. To reduce homeless people with mental illness' reliance on emergency and institutional services, the primary, initial objective of mental health housing programs must be to continue to focus on stably housing individuals. Although Housing First is effective at achieving this goal for many people, there is still a minority of individuals who do not succeed in the housing model. One group of people who may be at greater risk of experiencing difficulties achieving housing stability are individuals who have ongoing involvement in the legal system or continued criminal activity. Although modifications to the Housing First support model to better serve people with forensic backgrounds could be beneficial, it is also necessary to consider other housing options that offer high levels of support. To further reduce burden on service systems associated with homelessness and mental illness, more study into whether individuals who experience difficulties with Housing First programs can be stably housed via other housing models is required.

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Table 4. Baseline characteristics by intervention and housing stability.

| Characteristic | Full Sample* (N = 1581-1650) | Housing First | | | | Standard Care | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Sustained Housing Instability (n = 85-87) | Late Housing Instability (n = 84-89) | Sustained Housing Stability (n = 708-732) | Late Housing Stability (n = 71-78) | Sustained Housing Instability (n = 296-312) | Late Housing Instability (n = 32-34) | Sustained Housing Stability (n = 153-158) | Late Housing Stability (n = 152-160) |
| Age | 41.03 (11.06) | 38.07 (11.87) | 39.53 (11.12) | 41.49 (11.01) | 39.34 (9.96) | 41.63 (11.13) | 39.18 (9.81) | 41.51 (11.58) | 40.94 (10.69) |
| Gender, male | 1127 (68.3%) | 65 (74.7%) | 72 (80.9%) | 479 (65.4%) | 52 (66.7%) | 226 (72.4%) | 25 (73.5%) | 103 (65.2%) | 105 (65.6%) |
| Canadian-born | 1334 (80.8%) | 72 (82.8%) | 77 (86.5%) | 584 (79.8%) | 66 (84.6%) | 255 (81.7%) | 28 (82.4%) | 125 (79.1%) | 127 (79.4%) |
| Lifetime length of homelessness (months) | 61.60 (70.56) | 84.55 (85.81) | 80.45 (95.26) | 55.74 (65.33) | 68.74 (71.83) | 64.98 (69.80) | 66.85 (73.64) | 55.60 (71.51) | 60.52 (63.97) |
| Military veteran | 70 (4.3%) | 4 (4.7%) | 3 (3.4%) | 35 (4.8%) | 4 (5.1%) | 14 (4.5%) | 2 (5.9%) | 5 (3.2%) | 3 (1.9%) |
| MCAS total | 59.70 (8.65) | 57.60 (8.80) | 58.62 (8.33) | 60.13 (8.69) | 58.18 (9.79) | 58.61 (8.72) | 59.32 (9.02) | 61.82 (7.93) | 60.32 (7.93) |
| GAIN-SPS total (past month) | 1.84 (1.94) | 2.08 (2.07) | 2.42 (2.06) | 1.71 (1.91) | 1.97 (2.07) | 2.07 (1.96) | 2.09 (2.02) | 1.53 (1.85) | 1.68 (1.82) |
| Chronic medical conditions | 4.69 (3.43) | 3.95 (3.18) | 5.51 (3.63) | 4.70 (3.42) | 4.01 (3.32) | 4.63 (3.45) | 5.03 (4.00) | 4.50 (3.23) | 5.16 (3.49) |
| Current psychiatric diagnosis | | | | | | | | | |
| Major depressive episode | 839 (50.8%) | 40 (46.0%) | 49 (55.1%) | 381 (52.0%) | 35 (44.9%) | 142 (45.5%) | 19 (55.9%) | 83 (52.5%) | 90 (56.3%) |
| Mania or hypomania episode | 221 (13.4%) | 9 (10.3%) | 14 (15.7%) | 104 (14.2%) | 6 (7.7%) | 47 (15.1%) | 4 (11.8%) | 20 (12.7%) | 17 (10.6%) |
| Posttraumatic stress disorder | 476 (28.9%) | 21 (24.1%) | 37 (41.6%) | 216 (29.5%) | 13 (16.7%) | 82 (26.4%) | 11 (32.4%) | 50 (31.6%) | 46 (28.8%) |
| Panic disorder | 375 (22.7%) | 11 (12.6%) | 24 (27.0%) | 171 (23.4%) | 12 (15.4%) | 81 (26.0%) | 8 (23.5%) | 31 (19.6%) | 37 (23.1%) |
| Mood disorder, psychotic features | 276 (16.7%) | 13 (14.9%) | 11 (12.4%) | 123 (16.8%) | 10 (12.8%) | 55 (17.7%) | 4 (11.8%) | 32 (20.3%) | 28 (17.5%) |
| Psychotic disorder | 599 (36.3%) | 38 (43.7%) | 23 (25.8%) | 254 (34.7%) | 35 (44.9%) | 127 (40.7%) | 11 (32.4%) | 54 (34.2%) | 57 (35.6%) |
| Alcohol abuse/dependence | 740 (44.8%) | 41 (47.1%) | 57 (64.0%) | 311 (42.5%) | 33 (42.3%) | 151 (48.4%) | 12 (35.3%) | 63 (39.9%) | 72 (45.0%) |
| Drug abuse/dependence | 884 (53.6%) | 50 (57.5%) | 56 (62.9%) | 371 (50.7%) | 44 (56.4%) | 174 (55.8%) | 24 (70.6%) | 78 (49.4%) | 87 (54.4%) |
| Long-stay psychiatric hospitalization (≥6 months) in past 5 years | 109 (6.7%) | 9 (10.8%) | 5 (5.7%) | 53 (7.3%) | 6 (7.8%) | 14 (4.5%) | 1 (3.0%) | 11 (7.1%) | 10 (6.3%) |
| Two or more psychiatric hospitalizations in past 5 years | 602 (37.2%) | 18 (21.2%) | 26 (29.2%) | 272 (37.9%) | 30 (40.0%) | 113 (37.0%) | 12 (36.4%) | 60 (38.2%) | 71 (44.9%) |
| Support model | | | | | | | | | |
| ACT | 342 (34.7%) | 34 (39.1%) | 33 (37.1%) | 246 (33.6%) | 29 (37.2%) | - | - | - | - |
| ICM | 560 (56.8%) | 50 (57.4%) | 52 (58.4%) | 417 (57.0%) | 41 (52.6%) | - | - | - | - |
| Congregate, supportive housing | 84 (8.5%) | 3 (3.4%) | 4 (44.9%) | 69 (9.4%) | 8 (10.3%) | - | - | - | - |

ACT = Assertive Community Treatment; ICM = Intensive Case Management; MCAS = Multnomah Community Ability Scale; GAIN-SPS = Global Appraisal of Individual Needs–Substance Problem Scale

* Full sample for support model includes only Housing First participants (N = 986).

*Notes*. Higher scores on the MCAS reflect greater functioning. Higher scores on the GAIN-SPS reflect greater severity of substance problems.

Table 5. Adjusted service use means (95% confidence intervals) across 24 months by intervention and housing stability.

| | Housing First | | | | Standard Care | | | |
|---|---|---|---|---|---|---|---|---|
| Service Use Domain | Sustained Housing Instability (n = 82-87) | Late Housing Instability (n = 87-89) | Sustained Housing Stability (n = 712-732) | Late Housing Stability (n = 72-78) | Sustained Housing Instability (n = 299-312) | Late Housing Instability (n = 32-34) | Sustained Housing Stability (n = 153-158) | Late Housing Stability (n = 155-160) |
| Emergency department (visits/6 months) | | | | | | | | |
| Baseline | 2.30 (1.51, 3.09) | 3.55 (2.78, 4.33) | 1.92 (1.66, 2.19) | 1.92 (1.08, 2.76) | 1.71 (1.30, 2.12) | 2.68 (1.44, 3.91) | 2.05 (1.47, 2.63) | 2.11 (1.54, 2.69) |
| Year 1 | 0.61 (-0.18, 1.40) | 2.03 (1.27, 2.80) | 1.05 (0.78, 1.31) | 1.08 (0.26, 1.90) | 1.33 (0.91, 1.75) | 1.32 (0.06, 2.57) | 1.11 (0.53, 1.68) | 1.97 (1.39, 2.54) |
| Year 2 | 0.59 (-0.20, 1.38) | 1.50 (0.73, 2.27) | 0.83 (0.56, 1.10) | 0.74 (-0.07, 1.56) | 1.14 (0.73, 1.55) | 1.10 (-0.13, 2.34) | 0.83 (0.25, 1.41) | 1.04 (0.47, 1.62) |
| Hospital stays, medical (days/3 months) | | | | | | | | |
| Baseline | 0.13 (-0.83, 1.08) | 0.37 (-0.58, 1.32) | 0.94 (0.61, 1.27) | 0 (-1.01, 1.01) | 0.54 (0.04, 1.05) | 0 (-1.53, 1.53) | 0.50 (-0.21, 1.21) | 1.51 (0.81, 2.22) |
| Year 1 | 0.17 (-0.79, 1.13) | 0.33 (-0.62, 1.28) | 0.32 (-0.01, 0.65) | 1.12 (0.11, 2.13) | 0.68 (0.17, 1.18) | 0.04 (-1.50, 1.57) | 0.25 (-0.46, 0.96) | 0.46 (-0.25, 1.17) |
| Year 2 | 0.49 (-0.46, 1.45) | 0.55 (-0.40, 1.49) | 0.53 (0.20, 0.86) | 0.51 (-0.50, 1.52) | 1.09 (0.58, 1.59) | 0.15 (-1.38, 1.69) | 0.49 (-0.22, 1.20) | 0.44 (-0.27, 1.15) |
| Hospital stays, psychiatric (days/3 months) | | | | | | | | |
| Baseline | 1.28 (-0.98, 3.53) | 1.78 (-0.45, 4.00) | 4.22 (3.44, 4.99) | 4.92 (2.55, 7.30) | 2.67 (1.48, 3.86) | 2.00 (-1.60, 5.60) | 3.95 (2.28, 5.60) | 3.80 (2.14, 5.46) |
| Year 1 | 2.98 (0.73, 5.23) | 2.01 (-0.22, 4.24) | 1.54 (0.77, 2.32) | 5.16 (2.78, 7.54) | 3.30 (2.11, 4.49) | 0.39 (-3.20, 3.99) | 0.84 (-0.83, 2.51) | 3.00 (1.34, 4.66) |
| Year 2 | 4.56 (2.31, 6.82) | 3.11 (0.88, 5.34) | 0.92 (0.14, 1.69) | 2.24 (-0.14, 4.62) | 2.97 (1.79, 4.16) | 0.53 (-3.07, 4.13) | 0.54 (-1.13, 2.21) | 1.31 (-0.35, 2.97) |
| Outpatient hospital services (visits/6 months) | | | | | | | | |
| Baseline | 0.57 (-0.42, 1.56) | 1.15 (0.17, 2.13) | 1.54 (1.20, 1.88) | 0.46 (-0.62, 1.54) | 0.87 (0.35, 1.40) | 1.28 (-0.34, 2.90) | 1.44 (0.70, 2.18) | 1.35 (0.62, 2.09) |
| Year 1 | 0.40 (-0.60, 1.41) | 0.33 (-0.65, 1.30) | 0.86 (0.52, 1.20) | 0.41 (-0.64, 1.46) | 0.97 (0.44, 1.50) | 0.42 (-1.17, 2.02) | 2.37 (1.64, 3.10) | 1.01 (0.28, 1.75) |
| Year 2 | 0.42 (-0.59, 1.42) | 0.17 (-0.81, 1.15) | 0.59 (0.25, 0.94) | 0.56 (-0.48, 1.60) | 0.83 (0.31, 1.35) | 3.41 (1.84, 4.99) | 1.56 (0.82, 2.30) | 0.95 (0.22, 1.68) |
| Specialized crisis services (calls and visits/6 months) | | | | | | | | |
| Baseline | 2.00 (0.51, 3.49) | 1.29 (-0.16, 2.75) | 1.36 (0.85, 1.87) | 0.97 (-0.61, 2.56) | 0.77 (-0.01, 1.56) | 1.59 (-0.77, 3.94) | 1.68 (0.58, 2.79) | 1.19 (0.09, 2.29) |
| Year 1 | 0.39 (-1.12, 1.90) | 1.13 (-0.33, 2.58) | 0.75 (0.25, 1.26) | 0.91 (-0.66, 2.47) | 0.52 (-0.27, 1.32) | 0.62 (-1.77, 3.01) | 1.61 (0.52, 2.70) | 0.85 (-0.25, 1.95) |
| Year 2 | 0.46 (-1.03, 1.96) | 0.48 (-0.99, 1.94) | 1.45 (0.94, 1.96) | 0.62 (-0.93, 2.18) | 0.66 (-0.12, 1.44) | 0.43 (-1.93, 2.78) | 0.93 (-0.18, 2.03) | 1.53 (0.44, 2.62) |
| Drop-in centers (visits/6 months) | | | | | | | | |
| Baseline | 75.30 (55.64, 94.96) | 71.78 (52.45, 91.10) | 68.26 (61.51, 75.00) | 86.77 (65.72, 107.83) | 86.82 (76.40, 97.24) | 45.39 (13.66, 77.13) | 63.34 (48.74, 77.94) | 84.59 (70.18, 99.00) |
| Year 1 | 62.63 (42.62, 82.64) | 63.92 (44.59, 83.24) | 47.59 (40.85, 54.33) | 54.96 (34.18, 75.73) | 88.65 (78.10, 99.19) | 54.24 (22.51, 85.98) | 36.87 (22.37, 51.38) | 71.72 (57.08, 86.36) |
| Year 2 | 70.43 (50.54, 90.32) | 73.70 (54.27, 93.13) | 40.88 (34.08, 47.69) | 53.22 (32.58, 73.86) | 68.47 (58.14, 78.81) | 54.13 (22.87, 85.40) | 29.07 (14.42, 43.71) | 58.79 (44.29, 73.30) |
| Homeless shelters (days/3 months) | | | | | | | | |
| Baseline | 32.31 (27.02, 37.59) | 24.78 (19.55, 30.00) | 32.17 (30.35, 33.99) | 33.23 (27.65, 38.80) | 31.13 (28.34, 33.91) | 32.72 (24.28, 41.17) | 34.91 (30.99, 38.83) | 31.39 (27.50, 35.29) |
| Year 1 | 18.68 (13.40, 23.97) | 5.55 (0.33, 10.77) | 5.31 (3.49, 7.13) | 16.56 (10.98, 22.14) | 23.63 (20.84, 26.42) | 12.05 (3.61, 20.50) | 10.12 (6.20, 14.04) | 22.93 (19.04, 26.83) |
| Year 2 | 14.31 (9.02, 19.59) | 6.46 (1.24, 11.68) | 0.85 (-0.98, 2.67) | 3.61 (-1.97, 9.19) | 16.92 (14.13, 19.71) | 9.61 (1.16, 18.06) | 0.82 (-3.10, 4.74) | 6.01 (2.11, 9.90) |
| Food banks (visits/6 months) | | | | | | | | |
| Baseline | 1.29 (0.28, 2.30) | 1.82 (0.82, 2.82) | 1.95 (1.60, 2.29) | 1.49 (0.41, 2.56) | 1.97 (1.44, 2.51) | 0.74 (-0.87, 2.34) | 2.29 (1.54, 3.03) | 1.41 (0.67, 2.15) |
| Year 1 | 0.85 (-0.18, 1.88) | 2.16 (1.17, 3.15) | 3.32 (2.97, 3.66) | 1.21 (0.15, 2.28) | 1.70 (1.15, 2.24) | 1.86 (0.23, 3.49) | 2.83 (2.08, 3.57) | 2.08 (1.33, 2.83) |
| Year 2 | 0.85 (-0.18, 1.87) | 1.55 (0.55, 2.55) | 3.14 (2.79, 3.49) | 2.64 (1.58, 3.70) | 1.58 (1.05, 2.11) | 2.82 (1.22, 4.43) | 2.54 (1.79, 3.29) | 2.84 (2.10, 3.59) |
| Prison (days/3 months) | | | | | | | | |
| Baseline | 9.00 (6.51, 11.49) | 4.15 (1.69, 6.60) | 1.42 (0.56, 2.28) | 6.50 (3.87, 9.13) | 4.19 (2.88, 5.51) | 3.09 (-0.89, 7.07) | 1.63 (-0.22, 3.47) | 1.19 (-0.64, 3.03) |
| Year 1 | 17.78 (15.29, 20.26) | 2.08 (-0.38, 4.54) | 0.79 (-0.06, 1.65) | 8.83 (6.21, 11.46) | 5.32 (4.01, 6.63) | 0.70 (-3.28, 4.68) | 0.77 (-1.07, 2.62) | 0.64 (-1.19, 2.48) |
| Year 2 | 22.72 (20.24, 25.21) | 12.25 (9.79, 14.71) | 0.82 (-0.04, 1.67) | 3.18 (0.55, 5.81) | 6.89 (5.58, 8.21) | 4.71 (0.74, 8.69) | 0.40 (-1.44, 2.25) | 0.45 (-1.38, 2.28) |

Figure 1. Screening, randomization, and analysis procedures of participants for RCT and current study.

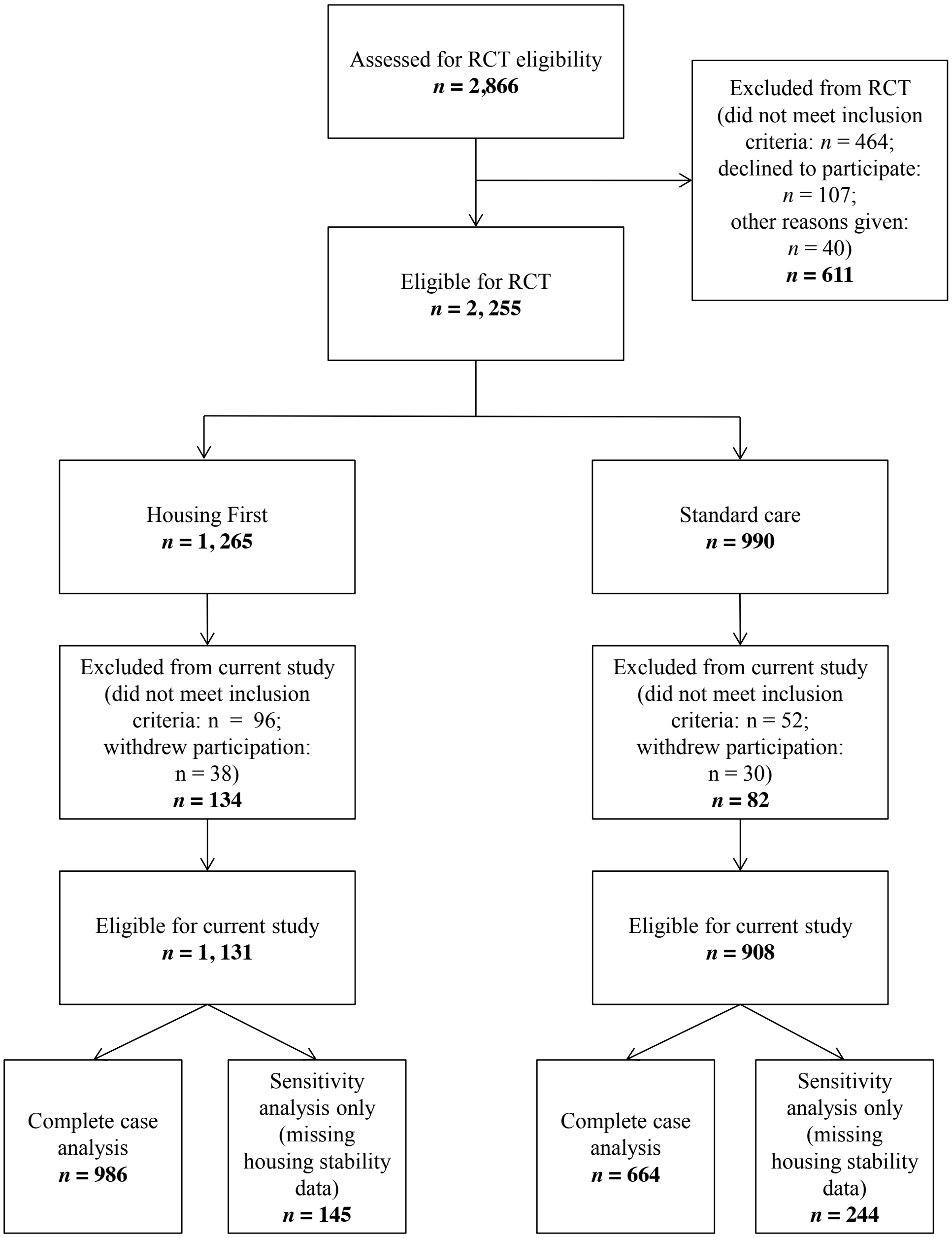
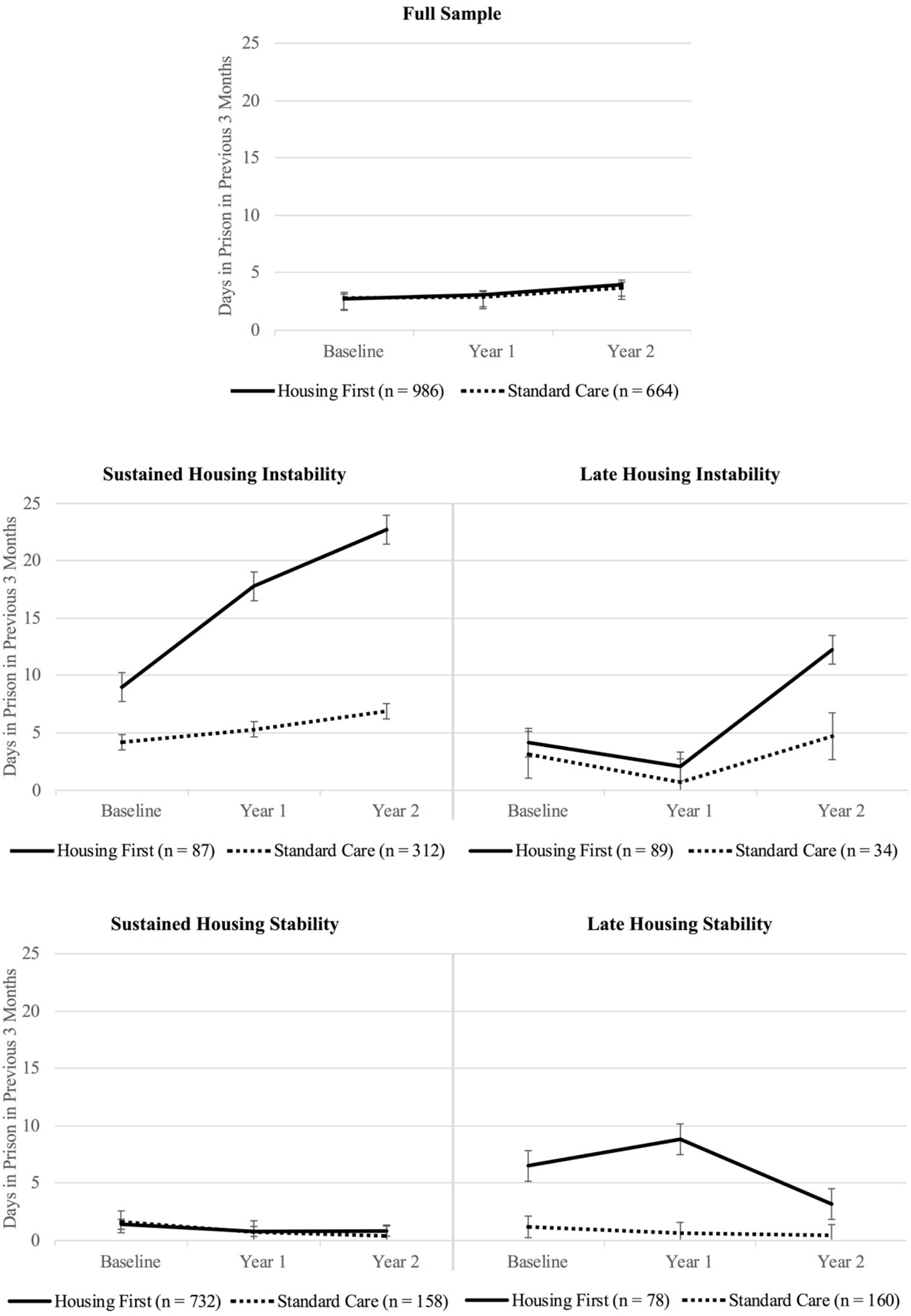


Figure 2. Mean time in prison by intervention and housing stability.



# Predictors of Mental Health Recovery in Homeless Adults with Mental Illness

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## Abstract

For people with mental illness, experiences of homelessness can complicate mental health recovery processes. This study used longitudinal data from a randomized controlled trial of Housing First to examine predictors of recovery among homeless people with mental illness. Findings showed that health and community predictors were most strongly associated with mental health recovery. Receipt of Housing First did not have any effect on changes in recovery scores at follow-up. Overall, the findings suggest that interventions aimed at preventing chronic homelessness, strengthening social networks and community involvement, and providing case management services will facilitate mental health recovery.

## Introduction

In recent decades, mental health service systems have undergone a reorientation prioritizing “recovery” as a key outcome of community mental health services. Recovery has been described as a process of change that enables individuals with mental illness to live satisfying and meaningful lives in the community (Anthony, 1993). The elements that are central to recovery include having hope and optimism about the future, clarifying self-identity, becoming empowered, experiencing connectedness to others, and exercising citizenship (Davidson, O’Connell, Tondora, Lawless, & Evans, 2005). Because there are many recovery elements and pathways, it is necessary to understand the factors that may spur or impede recovery to increase the effectiveness of recovery-oriented service delivery. Using data from a multisite randomized controlled trial of Housing First (HF), this study will examine predictors of mental health recovery among people with mental illness who are experiencing homelessness.

A four-dimensional framework comprised of health, home, purpose, and community factors has been proposed as the foundations that support mental health recovery (SAMSHA, 2012). The health dimension refers to managing symptoms of mental illness and substance use problems, as well as making healthy choices that promote emotional wellbeing. Given the elevated rates of comorbid medical conditions among people with mental illness (Sokal et al., 2004), the role of physical health in mental health recovery must also be considered as a component of the dimension. When people are effectively managing and coping with their symptoms of mental illness, substance use problems, and medical conditions, there is less impairment of functioning (Ecker et al., 2012; Zhornitsky et al., 2013). This enables people to explore and make personal changes conducive to recovery. Health greatly impacts recovery as mental health symptoms, physical health impairments, and adverse adulthood experiences have each been found in a number of studies to be negatively correlated with recovery (Green et al., 2013; Resnick, Rosenheck, & Lehman, 2004; Stumbo, Yarborough, Paulson, & Green, 2015).

The dimension of home identifies the role of stable housing in mental health recovery. By fulfilling the basic need for shelter, safe and affordable housing can become a cornerstone for personal growth. People with mental illness are then able to develop a future orientation through goal-setting and actualization (Nelson & MacLeod, 2017). In contrast, homelessness and precarious housing perpetuate a survival mindset in which the ability to plan ahead is limited. This dimension has been minimally examined to date and the extent of its relationship with recovery is not fully understood. In a study of over 800 people with schizophrenia, number of moves in the past year was negatively correlated with hope (Resnick et al., 2004). Further, length of homelessness but not number of homeless episodes has been linked to poorer mental health recovery, suggesting that homelessness is an ongoing adversity that may undermine positive outcomes (Castellow, Kloos, & Townley, 2015).

Purpose refers to engagement in meaningful activities and having the means to participate in society. Involvement in work, school, family caregiving, hobbies and recreation, and other pursuits contribute to the achievement of fulfilling and satisfying lives, as well as offer opportunities to develop and expand social roles (Davidson & White, 2007; Hendryx, Green, & Perrin, 2009). Further, meaningful activities promote empowerment through greater community presence and voice. Studies have demonstrated that involvement in meaningful activities, including volunteering, school, and recreation, are linked to greater mental health recovery (Kaplan, Salzer, & Brusilovskiy, 2012; Padgett, Smith, Choy-Brown, Tiderington, & Mercado, 2016). As for paid employment, the evidence is mixed, with Kaplan et al. (2012) not finding a significant correlation with recovery, whereas Lloyd, King, and Moore (2010) found that individuals involved in paid employment perceived their mental health recovery to be greater than those who received income supports. Employment contributed to recovery for only a small number of formerly homeless adults with mental illness in the study by Padgett, Smith et al. (2016), which may have been the result of high unemployment rates within the sample and a lack of opportunities to enter the workforce. There is scant evidence on the impacts of other meaningful activities, such as family caregiving, on recovery.

The fourth dimension of community, as initially proposed by SAMSHA (2012), emphasized the role of supportive relationships and social networks in recovery. Ellison, Belanger, Niles, Evans, and Bauer (2018) added community integration and connectedness as other aspects of the dimension. Social relationships can advance the recovery process as people with mental illness are able to access support in times of need. Connection to other people also offers opportunities for redefining self-identity from patienthood to personhood. The benefits of social support for mental health recovery are one of the most robust findings in studies of recovery among people with serious mental illness (e.g., Chang, Heller, Pickett, & Chen, 2013; Corrigan & Phelan, 2004; Hendryx et al., 2009; Pernice-Duca & Onaga, 2009). The components of community connectedness and integration may include people's presence and participation in activities in the community (i.e., physical integration), as well as their sense of belonging to a community (i.e., psychological integration; Aubry & Myner, 1996). Physical involvement in the community can be beneficial for preventing or overcoming social isolation – a key barrier to recovery (Davidson et al., 2001). Community integration is also positively associated with neighbourhood tolerance of mental illness (Townley & Kloos, 2011), which may enable people to live the lives they want with fewer experiences of stigma and discrimination. Among people with serious mental illness who lived in independent housing arrangements, participants who had a greater sense of belonging also perceived their level of recovery to be higher (Townley, Kloos, & Wright, 2009). Moreover, greater involvement in community and leisure activities has been linked to higher levels of recovery (Hendryx et al., 2009). Overall, although there is evidence to support the individual dimensions of SAMSHA's (2012) framework, the model has not yet been holistically examined. In addition, research has only minimally investigated the factors that affect mental health recovery among people with mental illness who are experiencing homelessness.

Poverty can hinder the recovery processes of people with mental illness by limiting their opportunities to engage in meaningful roles (Sylvestre, Notten, Kerman, Polillo, & Czechowki, 2018). Despite its deleterious effects, research has not fully considered the challenges presented to achieving recovery in the context of having experienced homelessness and housing instability. Given that homelessness is associated with increased risk of victimization, social exclusion, and incarceration (Padgett, Tiderington, Smith, Derejko, & Henwood, 2016), these adversities may complicate the recovery process. Moreover, for people experiencing homelessness, housing stability may only be feasible with accompanying supports. For example, HF, which involves the provision of rent subsidies and support via Assertive Community Treatment (ACT) or Intensive Case Management (ICM), has been shown to be more effective in stably housing people experiencing chronic homelessness and mental illness than standard care (e.g., Aubry et al., 2016; Rog et al., 2014; Stergiopoulous et al., 2015). Because of this, support services are a necessary component of a mental health recovery framework for people who have experienced homelessness. Accordingly, this study examined an adapted version of SAMSHA's (2012) four-dimensional framework of mental health recovery that integrates elements applicable to the experience of homelessness.

Using 24-month longitudinal data from a multisite randomized controlled trial examining the effectiveness of HF relative to treatment as usual (TAU), this study explored the extent to which health, home and support, purpose, and community factors were predictive of subjective feelings of recovery among homeless people with mental illness. This study addressed two research questions. First, what are the strongest predictors of mental health recovery among homeless people with mental illness at baseline? Second, how does HF affect changes in mental health recovery at 24 months?

## Methods

### Study design

The At Home/Chez Soi demonstration project was a multisite randomized controlled trial of HF conducted from 2009 to 2013 in five Canadian cities (Moncton, Montreal, Toronto, Vancouver, and Winnipeg). Participants were randomized to receive either HF or TAU. The HF intervention included access to scattered-site apartments with accompanying rent subsidies. Participants in the HF condition who were assessed to have high needs were provided with ACT based on presenting diagnoses and level of functioning, whereas ICM was available to those with moderate needs. All tenants had choice over the level of support that they received, including the option of only meeting in person for a short period with a support staff member once per week. The five sites each had a third arm intervention, which involved location-specific modifications to the housing and support model (for details, see Goering et al., 2011). Participants in the TAU condition were eligible to access any of the existing programs in their communities other than the HF services that were a part of the clinical trial. Research ethics board approval was obtained from the Centre for Addiction and Mental Health, as well as 11 local institutions at the five sites where the trial was conducted.

### Participants

Recruitment for the trial occurred via community service organizations, including shelters and health clinics, as well as by self-referral. Eligibility criteria were: presence of a mental illness (as determined by the Mini-International Neuropsychiatric Interview, version 6.0 [MINI; Sheehan et al., 1998] or a recent written diagnosis); currently absolutely homeless (i.e., use of emergency shelters for one or more nights in the past month, or having no fixed address); and 18 years of age or older (19+ in Vancouver). Of the 2,255 homeless adults with mental illness who were enrolled in the trial, 68 were excluded from analysis due to withdrawal from the study prior to 24 months. Data from 2,187 participants were analyzed for this study.

### Measures

A 22-item version of the Recovery Assessment Scale (RAS-22; Corrigan, Giffort, Rashid, Leary, & Okeke, 1999) was used to measure subjective ratings of recovery. The measure conceptualizes and assesses recovery across five domains: personal confidence and hope, willingness to ask for help, goal and success orientation, reliance on others, and freedom from illness symptoms. Using a five-point scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”), scores were computed for each subscale, as well as an overall rating of recovery. The measure was administered to participants at baseline and the 24-month follow-up. The original RAS has been found to have adequate test stability and adequate construct validity (Corrigan et al., 1999; Corrigan, Salzer, Ralph, Sangster, & Keck, 2004; Salzer & Brusilovskiy, 2014). A 24-item version of the tool has also been validated for use with homeless populations (Girard et al., 2015). Internal consistency ratings of the RAS-22 and its subscales for this study ranged from .76 to .90 at baseline and .75 to .91 at 24 months.

A modified 14-item version of the Colorado Symptom Index (CSI; Shern et al., 1994) was used to assess the presence and frequency of mental health symptoms experienced in the past month. The CSI has adequate test-retest reliability, content validity, and construct validity (Boothroyd & Chen, 2008). Substance use in the past month was assessed using a five-item version of the Global Assessment of Individual Need – Substance Problem Scale (GAIN-SPS; Dennis, Chan, & Funk, 2006). Questions ask about problems related to substance use, amount of time spent in substance-related activities (e.g., obtaining, using, or recovering from substances), and presence of withdrawal symptoms. Chronic medical conditions were assessed using the Comorbid Conditions List (Mental Health Commission of Canada [MHCC], 2010). A summed score of the number of comorbid conditions that persist for at least six months was computed. Adverse childhood experiences were examined using 10 items that assess exposure to adversity before the age of 18 years, including emotional, physical, and sexual abuse; neglect; and household dysfunction (Felitti et al., 1998). A total score is computed by summing each dichotomous item (yes/no). The internal consistency of the scale was .82 for this study.

The Health, Social, and Justice Service Use Inventory (HSJSU; MHCC, 2010) was used to assess use of case management services, assistance with housing and income, receipt of therapy, and use of drop-in centres and community meal programs. Items addressed dichotomous use of each service (yes/no) in the past month. Data were also gathered from five items assessing victimization in the past six months (experienced theft, physical assault, sexual assault, other crime). These items were also dichotomous but were summed to compute a total score of adverse adulthood experiences. The internal consistency of the victimization items was .67. The HSJSU previously underwent pre-testing and piloting to ensure that individuals with serious mental illness do not experience difficulties with the recall items (Goering et al., 2011).

Community integration was assessed using the Community Integration Scale (CIS; Goering et al., 2011). The CIS involves two scales examining physical and psychological integration separately. Physical integration was assessed using seven items to examine participation in community activities within the past month. Each item was dichotomous with a total score being computed from 0 to 7. Four items were used to assess psychological integration. Using a five-point scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"), a total score was computed that ranged from 4 to 20. Higher scores on both CIS scales reflect greater community integration. The CIS underwent pre-testing and piloting with people with serious mental illness. The internal reliability of the physical integration scale was .61 and the psychological integration scale was .75.

The Demographics, Housing, Vocational and Service Use History questionnaire (MHCC, 2010) collected information on lifetime length of homelessness, involvement in work (paid or volunteer) and school, and provision of full or partial support to children under the age of 18 years. Additional information on participants' housing histories was collected from the Residential Time-line Follow-back (Tsemberis, McHugo, Williams, Hanrahan, & Stefancic, 2007). Housing stability was measured as the percentage of nights in the past three months that participants spent in stable residences, such as their own apartments or houses, family members' apartments or houses, single room occupancy hotels, boarding houses, group homes, or transitional housing programs with intended stays of at least six months.

### Data analysis

Hierarchical regressions were conducted using the full sample (i.e., participants from the HF and TAU conditions were analyzed together). The predicted variables in the regression analyses were ratings of recovery at baseline and 24 months. For the regression models predicting recovery at baseline, predictor variables were entered sequentially in four blocks: [1] adverse childhood experiences, chronic medical conditions, mental health symptoms, psychotic disorder diagnosis, substance use problems, and adverse adulthood experiences (health block); [2] lifetime length of homelessness, housing stability in past three months, receipt of case management services, receipt of assistance with housing or income, use of drop-in centres and community meal programs, and receipt of therapy (home and support block); [3] involvement in meaningful activity (paid work, volunteering, or school), and provision of full or partial support to a child under 18 years of age (purpose block); and [4] having a close confidante with whom to share personal information, psychological integration, and physical integration (community block). The four blocks were entered into the regression models in the order outlined by SAMSHA's (2012) working definition of recovery. Within each block, predictors were entered according to temporal precedence (i.e., any historical predictors were added prior to recent and current predictors).

For the regression model predicting recovery at 24 months, recovery ratings at baseline was added to the model as the first predictor to assess residual change in recovery scores. Randomization to intervention (HF plus ACT or ICM versus TAU) was also added to the home and support block. All other variables remained the same. There were no violations to the regression model assumptions of collinearity, homoscedasticity, or independence of errors. Given the studied population, housing stability in the past three months was positively skewed; however, least-squares linear regression performs well with non-normally distributed samples of 500 or more participants (Lumley, Diehr, Emerson, & Chen, 2002).

Multiple imputation was used to address missing data. Ten imputations, with 50 iterations each, were performed using a linear regression algorithm. To reduce analytic bias, an additional

23 variables were included as auxiliary predictors. Findings are presented using pooled estimates of the multiply imputed datasets. All statistical analyses were performed used SPSS 24.

## Results

Of the 2,187 participants, 1,476 (67.5%) were male and the mean age was 40.82 (SD = 11.19) years. Approximately one-fifth of the sample (*n* = 472; 21.6%) identified as Indigenous Canadian. The mean rating of overall recovery at baseline was 78.64 (SE = 0.29). For contextual purposes, when the RAS-22 was scored as a mean as opposed to a sum (*M* = 3.57, SE = 0.01), level of recovery in this study was approximately one standard deviation lower than what has been found in other research with non-homeless samples of people with mental illness (for a review, see Salzer & Brusilovskiy, 2014). Mean ratings of recovery for each RAS-22 subscale and other sample characteristics at baseline are presented in Table 6. Whereas participants had spent an average of 8.66% (SE = 0.57) of their nights in stable housing in the past three months at baseline, housing stability in the past three months increased to 63.03% (SE = 1.10) at 24 months.

The results of the hierarchical regression predicting overall recovery at baseline are presented in Table 7. The health, home and support, and community blocks of predictors significantly improved the model, though the effect size of the home and support block was small. Findings showed that participants who perceived their recovery to be greater were more likely to have fewer chronic medical conditions, have fewer mental health symptoms, have a diagnosis of a psychotic disorder, have less substance use problems in the past month, be homeless for less time in their lives, receive case management, have a close confidante with whom to share personal information, be more involved in community activities, and feel like they belong in their communities. Similar patterns of findings were observed for the five subscales of recovery, with the health and community blocks again being the strongest predictors of recovery (see Table 8). The variance explained by the four-dimensional framework was greatest for the subscale of personal confidence and hope, whereas it was lesser for willingness to ask for help, and goal and success orientation.

The health, home and support, purpose, and community predictors at baseline minimally affected residual changes in recovery at 24 months (see Table 9). None of the blocks of the four-dimensional framework significantly added to the model. Of the individual predictors, fewer adverse childhood experiences, involvement in meaningful activity, and having a close confidante were each associated with greater perceived level of recovery. Receipt of HF services, which was added to the home and support block for this analysis, was also not a significant predictor of changes in level of recovery.

## Discussion

The adapted four-dimensional framework of health, home and support, purpose, and community explained a large proportion of the variance in the hierarchal regression model predicting overall recovery among homeless people with mental illness. Similarly, the model predicting personal confidence and hope also had a large effect size, whereas, the four-dimensional framework had moderate effect sizes for the other recovery subscales. Of the four dimensions, health and community were the strongest predictors of mental health recovery, whereas the contributions of the home and support dimension were typically significant but small and the purpose predictors seldom reached the level of significance. Overall, the findings provide partial support for the effectiveness of the adapted four-dimensional framework for predicting mental health recovery among homeless people with mental illness.

Although this study is the first to examine predictors of mental health recovery using a sample of homeless people with mental illness, many of the study findings are consistent with past research using non-homeless samples. For example, less severity of mental health symptoms, fewer chronic medical conditions, greater involvement in community activities, and greater sense of belonging in the community have each been linked to greater mental health recovery (Green et al., 2013; Hendryx et al., 2009; Townley et al., 2009). Although this study used only a single, dichotomous item to measure social support, our findings are consistent with past research that demonstrates its importance to mental health recovery (e.g., Chang et al., 2013; Corrigan & Phelan, 2004; Hendryx, Green et al., 2009; Pernice-Duca & Onaga, 2009). As for substance use problems, which were found to be negatively associated with overall recovery (as well as to the subscales of willingness to ask for help, and goal and success orientation), the findings suggest a stronger link to recovery than what has been found in past research (e.g., Resnick et al., 2004). Similar to Castellow et al. (2015), length of homelessness was found to be negatively associated with mental health recovery, suggesting that people experiencing chronic homelessness may be most at-risk of deteriorations in mental health recovery. Further, as involvement in meaningful activity, including work, was not correlated to recovery, the findings are consistent with Kaplan et al. (2012) and further obfuscate the empirical relationship between mental health recovery and engagement in meaningful activities. However, as all participants were homeless in the sample at baseline – an experience that can be characterized as being in survival mode – involvement in work, school, or volunteering may be secondary to securement of permanent housing. Meaningful activities may contribute more to recovery after people have the stability of housing. Overall, the consistency in findings in this study with past research would suggest that predictors of mental health recovery are largely similar between housed and homeless people with mental illness.

The framework did not account for the residual changes in recovery at 24 months using baseline data. However, examining 24-month predictors may have yielded stronger findings. This was not feasible due to unavailable data related to the purpose dimension. Of note, fewer adverse childhood experiences and involvement in a meaningful activity were significantly associated with positive changes in recovery at 24 months. As the rate of housing stability in the sample was considerably higher at 24 months, the findings give rise to speculation about the temporality of predictors of mental health recovery. Future research should consider exploring how predictors of mental health recovery change over time as people transition from homelessness to housing, and vice versa. Moreover, as many housed people with mental illness live in poverty, it is important to recognize that financial stability may have a great effect on recovery after people exit homelessness. Receipt of HF services did not have any effect on changes in recovery scores. As participants had been homeless for almost an average of five years at baseline, those who were housed at 24 months may still be going through an adjustment phase that precedes action necessary to fostering and advancing mental health recovery. Moreover, mental illness, substance use problems, and homelessness may not be the only life adversities from which people are recovering. Given that people with mental illness who have histories of homelessness report nearly nine adverse life events, on average (Padgett, Smith, Henwood, & Tiderington, 2012), traditional definitions and measures of mental health recovery may only capture a part of the recovery journeys of this population. Conceptualizations of recovery as the cumulative life adversities experienced by formerly homeless people with mental illness (Padgett, Tidingerton et al., 2016) may enhance research into the conditions that help this population to live satisfying and meaningful lives in the community.

The study findings have implications for the delivery of recovery-oriented services to people experiencing homelessness. As length of homelessness was negatively associated with mental health recovery, the primary objective of programs and systems serving people experiencing homelessness should be to assist them to secure housing. If people with mental illness are not supported to exit homelessness, they may become more entrenched in street life and less likely to ask for help from the formal service system. Because of this, programs aimed at early identification of housing instability and rapid re-housing are expected to promote mental health recovery through the prevention of chronic homelessness. Support services can also facilitate the mental health recovery of people experiencing homelessness in other ways beyond finding housing. For example, interventions aimed at strengthening people's social networks and increasing their involvement in the community are expected to promote recovery. Further, as receipt of case management services was associated with greater recovery, connecting people who are experiencing homelessness to a primary worker may prevent social isolation, increase people's willingness to ask for help, facilitate access to services, and provide information and direction needed to exit homelessness and plan for the future. As many homeless people with mental illness have small social networks and difficulties with trust (Hawkins & Abrams, 2007; Padgett, Henwood, Abrams, & Drake, 2008), case managers may also promote mental health recovery through the provision of a reliable and emotionally supportive relationship.

The negative effects of chronic medical conditions, mental health symptoms, and problematic substance use on recovery during homelessness also require intervention. Connection to accessible mental health and primary care services that can provide support throughout homelessness, as well as bridge any transition into housing, is expected to have a positive impact on recovery. Ensuring continuity of care is likely to add stability to people's support networks through the development of a supportive relationship and prevent disengagement from treatment services (Padgett, Henwood, Abrams, & Davis, 2008). As for substance use treatment, the rates of service use by homeless people with mental illness are considerably lower than the rates of problematic substance use (Herrman et al., 2004). Given this, implementation of harm reduction approaches that are rooted in individual choice and control over treatment may lead to greater service uptake and promote mental health recovery among homeless populations.

## Limitations

There are several limitations to this study. First, the internal consistency coefficients of the scales measuring physical integration in the community and adverse adulthood experiences were weak (Cronbach's $\alpha < .70$). Nevertheless, confidence in our findings on the relationship between physical integration and mental health recovery is strengthened by its consistency with past research (e.g., Hendryx et al., 2009). As for the role of recent adverse adulthood experiences in recovery, findings should be interpreted with caution and require further examination. Second, although the RAS-22 addresses many of the central elements of recovery (for review, see Ellison et al., 2018), it is unknown how the findings would generalize to other components of recovery, such as exercise of citizenship, inclusion, sense of self and control, and empowerment. Because of this, future research should consider applying the four-dimensional framework to other conceptualizations of mental health recovery. Third, available data limited a more comprehensive of examination of the dimension of purpose. Although this study was able to investigate the relationships between mental health recovery and involvement in meaningful roles (i.e., paid work, school, volunteering, and family caregiving), other responsibilities and activities characteristic of the dimension of purpose (e.g., hobbies and recreation, pet ownership) were not included and require future examination.

## Conclusion

The study findings provided partial support for the effectiveness of the adapted four-dimensional framework in predicting mental health recovery among homeless people with mental illness. In particular, the health and community dimensions were the strongest predictors of perceived recovery, with moderate effect sizes. The home and support dimension added significantly to most components of recovery (reliance on others, willingness to ask for help, and personal confidence and hope), though the effect sizes were small. The purpose dimension added minimally to the regression models. Of the individual predictors, having fewer chronic medical conditions, having fewer mental health symptoms, having a diagnosis of a psychotic disorder, having a close confidante with whom to share personal information, being more involved in community activities, and feeling a greater sense of belonging in the community were most consistently associated with greater ratings of recovery. At 24 months, none of the health, home and support, purpose, and community dimensions significantly affected residual changes in recovery from baseline. Overall, the findings underscore the importance of assisting people experiencing homelessness to find housing as a means to facilitate mental health recovery. Moreover, providing case management services, such as those offered in HF, and interventions aimed at improving social support, managing mental and physical health symptoms, and increasing community involvement are expected to promote recovery among homeless people with mental illness.

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Table 6. Sample characteristics at baseline (*N* = 2,187).

| Variable | M | SE | n | % |
|---|---|---|---|---|
| Recovery, overall (RAS-22)[a] | 78.64 | .29 | | |
| Personal confidence and hope[a] | 24.75 | .11 | | |
| Willingness to ask for help[a] | 11.04 | .05 | | |
| Goal and success orientation[a] | 15.66 | .06 | | |
| Reliance on others[a] | 18.30 | .08 | | |
| Freedom from illness symptoms[a] | 8.90 | .06 | | |
| Adverse childhood experiences[b] | 4.72 | .07 | | |
| Count of chronic medical conditions | 4.70 | .07 | | |
| Mental health symptoms (CSI)[c] | 39.40 | .26 | | |
| Psychotic disorder diagnosis | | | 811 | 37.08 |
| Substance use problems (GAIN-SPS)[d] | 1.80 | .04 | | |
| Adverse adulthood experiences[e] | 1.37 | .03 | | |
| Lifetime length of homelessness (years) | 4.90 | .13 | | |
| Housing stability in past 3 months[f] | 8.66 | .57 | | |
| Receives case management[g] | | | 518.6 | 23.71 |
| Receives help with housing/income[g] | | | 992.5 | 45.38 |
| Uses drop-in centres[g] | | | 1499 | 68.54 |
| Receives therapy[g] | | | 584.3 | 26.72 |
| Involved in meaningful activity | | | 118.3 | 5.41 |
| Provision of support to child | | | 161 | 7.36 |
| Have a close confidante | | | 1105 | 50.53 |
| Community integration (CIS), physical[h] | 2.18 | .04 | | |
| Community integration (CIS), psychological[i] | 10.69 | .08 | | |

*Note.* RAS-22, Recovery Assessment Scale-22; CSI, Colorado Symptom Inventory; GAIN-SPS, Global Assessment of Individual Need–Substance Problem Scale; CIS = Community Integration Scale

[a] Possible scores range from 22 to 110 (overall recovery), 7 to 35 (personal hope and recovery), 3 to 15 (willingness to ask for help), 4 to 20 (goal and success orientation), 5 to 25 (reliance on others), and 3 to 15 (freedom from illness symptoms), each with higher scores indicating greater recovery achievement.

[b] Possible scores range from 0 to 10, with higher scores indicating more adverse childhood experiences

[c] Possible scores range from 14 to 70, with higher scores indicating more severe and frequent mental health symptoms.

[d] Possible scores range from 0 to 5, with higher scores indicating more substance use problems.

[e] Possible scores range from 0 to 5, with higher scores indicating more adverse adulthood experiences.

[f] Possible scores range from 0 to 100, with higher scores indicating more nights in stable housing.

[g] Service use in the past month.

[h] Possible scores range from 0 to 7, with higher scores indicating more participation in community activities.

[i] Possible scores range from 4 to 20, with higher scores indicating greater sense of belonging.

Table 7. Multivariate models predicting overall recovery at baseline.

| | Recovery, overall | | | | | |
|---|---|---|---|---|---|---|
| Predictor | B | SE | 95% CI | p | $R^2$ | $\Delta R^2$ |
| Block 1 (health) | | | | | .17 | .17*** |
| Adverse childhood experiences | <.01 | .10 | -.24, .15 | ns | | |
| Chronic medical conditions | -.31 | .08 | -.46, -.16 | *** | | |
| Mental health symptoms | -.30 | .02 | -.35, -.26 | *** | | |
| Psychotic disorder diagnosis | 2.47 | .51 | 1.46, 3.47 | *** | | |
| Substance use problems | -.32 | .14 | -.59, -.05 | * | | |
| Adverse adulthood experiences | .13 | .19 | -.25, .51 | ns | | |
| Block 2 (home and support) | | | | | .18 | .01* |
| Lifetime duration of homelessness | -.08 | .04 | -.17, 0 | * | | |
| Housing stability in past 3 months | <.01 | .01 | -.02, .02 | ns | | |
| Receives case management | 1.57 | .59 | .42, 2.72 | ** | | |
| Receives help with housing/income | -.01 | .50 | -.99, .98 | ns | | |
| Uses drop-in centres | .09 | .55 | -.99, 1.17 | ns | | |
| Receives therapy/counselling | -.50 | .57 | -1.61, .62 | ns | | |
| Block 3 (purpose) | | | | | .18 | <.01 |
| Involved in meaningful activity | .78 | 1.08 | -1.33, 2.89 | ns | | |
| Provision of support to child | .02 | .93 | -1.79, 1.84 | ns | | |
| Block 4 (community) | | | | | .31 | .12*** |
| Have a close confidante | 4.33 | .50 | 3.36, 5.31 | *** | | |
| Community integration, physical | .93 | .15 | .64, 1.23 | *** | | |
| Community integration, psychological | .91 | .07 | .78, 1.05 | *** | | |

*Note.* Coefficient statistics are pooled estimates. For $R^2$ and $\Delta R^2$ statistics, means were computed. Psychotic disorder diagnosis, support predictors (receives case management, receives help with housing/income, uses drop-in centres, receives therapy/counselling), have a close confidante: no = 0, yes = 1

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Table 8. Model summary of multivariate models predicting recovery subscales at baseline.

| | Willingness to ask for help | | Goal and success orientation | | Reliance on others | | Freedom from illness symptoms | | Personal confidence and hope | |
|---|---|---|---|---|---|---|---|---|---|---|
| Block | $R^2$ | $\Delta R^2$ | $R^2$ | $\Delta R^2$ | $R^2$ | $\Delta R^2$ | $R^2$ | $\Delta R^2$ | $R^2$ | $\Delta R^2$ |
| 1 (health)[a] | .07 | .07*** | .06 | .06*** | .05 | .05*** | .18 | .18*** | .19 | .19*** |
| 2 (home and support)[b] | .08 | .01* | .06 | <.01 | .07 | .02*** | .18 | <.01 | .19 | .01* |
| 3 (purpose)[c] | .08 | <.01 | .06 | <.01 | .07 | <.01* | .18 | <.01 | .19 | <.01 |
| 4 (community)[d] | .13 | .05*** | .12 | .06*** | .23 | .16*** | .22 | .04*** | .27 | .08*** |

*Note.* Means were computed for $R^2$ and $\Delta R^2$ statistics.

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

[a] Predictors: adverse childhood experiences; chronic medical conditions; mental health symptoms; psychotic disorder diagnosis; substance use problems; adverse adulthood experiences

[b] Predictors: lifetime duration of homelessness; housing stability in past 3 months; receives case management; receives help with housing/income; uses drop-in centres; receives therapy

[c] Predictors: involved in meaningful activity; provision of support to child

[d] Predictors: have a close confidante; community integration, physical; community integration, psychological

Table 9. Multivariate model predicting recovery at 24 months using baseline predictors.

| | Recovery, overall | | | | | |
|---|---|---|---|---|---|---|
| Predictor | B | SE | 95% CI | p | $R^2$ | $\Delta R^2$ |
| Block 1 | | | | | .17 | .17*** |
| Recovery at baseline | .37 | .03 | .31, .42 | *** | | |
| Block 2 (health) | | | | | .18 | <.01 |
| Adverse childhood experiences | -.34 | .11 | -.56, -.12 | ** | | |
| Chronic medical conditions | <.01 | .11 | -.21, .22 | ns | | |
| Mental health symptoms | .20 | .60 | -.98, 1.38 | ns | | |
| Psychotic disorder diagnosis | .02 | .03 | -.04, .08 | ns | | |
| Substance use problems | .07 | .17 | -.26, .41 | ns | | |
| Adverse adulthood experiences | -.14 | .21 | -.56, .29 | ns | | |
| Block 3 (home and support) | | | | | .19 | <.01 |
| Lifetime duration of homelessness | -.09 | .05 | -.18, 0 | ns | | |
| Housing stability in past 3 months | .01 | .01 | -.01, .03 | ns | | |
| Receives Housing First services | .86 | .61 | -36, 2.07 | ns | | |
| Receives case management | .45 | .71 | -.95, 1.85 | ns | | |
| Receives help with housing/income | .24 | .58 | -.91, 1.38 | ns | | |
| Uses drop-in centres | 1.26 | .65 | -.03, 2.55 | ns | | |
| Receives therapy/counselling | -.03 | .66 | -1.34, 1.28 | ns | | |
| Block 4 (purpose) | | | | | .19 | <.01 |
| Involved in meaningful activity | 2.42 | 1.23 | .01, 4.84 | * | | |
| Provision of support to child | 2.21 | 1.14 | -.06, 4.47 | ns | | |
| Block 5 (community) | | | | | .19 | <.01 |
| Have a close confidante | 1.15 | .56 | .04, 2.26 | * | | |
| Community integration, physical | .08 | .19 | -.29, .46 | ns | | |
| Community integration, psychological | .03 | .08 | -.14, .19 | ns | | |

*Note.* Coefficient statistics are pooled estimates. For $R^2$ and $\Delta R^2$ statistics, means were computed. Psychotic disorder diagnosis, support predictors (receives Housing First services, receives case management, receives help with housing/income, uses drop-in centres, receives therapy/counselling), have a close confidante: no = 0, yes = 1

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

# The Perceived Impacts of Service Use on Recovery Among Currently and Formerly Homeless Adults with Mental Illness

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Study presented here as a modified version of a manuscript submitted to a peer-reviewed journal with minor formatting changes for continuity with the rest of the dissertation.

# Abstract

People with mental illness experiencing homelessness or living in poverty can face many threats to their recovery, such as housing instability, unemployment, violence and victimization, and stigma and discrimination. A range of health, social, and community services exist to address these life adversities; however, their effects on mental health recovery have been minimally examined. This qualitative study investigated how currently and formerly homeless people with mental illness view services in their lives using a mental health recovery framework. Data from 52 participants, half of whom were currently homeless and the other half of whom were housed with a history of homelessness, were analyzed. Thematic analysis showed that services could help people to find ways to cope and get by, feel less alone, and give back. Participants also described mixed experiences with regard to how they were seen when using services, either feeling dehumanized or being seen as a person. Moreover, services were perceived to impede recovery when people encountered barriers and restrictions during help-seeking. Findings differed minimally between currently and formerly homeless participants, suggesting that the latter group may continue to live in poverty and have similar service experiences as those who are homeless.

## Introduction

The recovery paradigm has reformed mental health systems and strategies over the last 30 years (e.g., Mental Health Commission of Canada, 2012; Substance Abuse and Mental Health Services Administration, 2014). Despite its proliferation as the guiding vision for mental health services, consensus on the definition of recovery has been elusive (Davidson, O'Connell, Tondora, Styron, & Kangas, 2006; Ellison, Belanger, Niles, Evans, & Bauer, 2018). Davidson and Roe (2007) described the differing conceptualizations as "recovery from" versus "recovery in" mental illness. In the former, recovery involves symptom management and amelioration to a pre-illness state, whereas recovery in mental illness refers to people living their lives and pursuing personal hopes and aspirations despite ongoing illness. Moreover, because recovery is a personal and unique process for people with mental illness (Anthony, 1993), recovery may be different in form for different people.

Rates of housing instability and unemployment are disproportionally higher among people with mental illness than the general population (Folsom et al., 2005; Marwaha & Johnson, 2004). Despite these challenges being a reality for many people with mental illness, conceptualizations of recovery have largely neglected to consider how poverty may restrict people from living the lives that they want (Padgett, Tiderington, Smith, Derejko, & Henwood, 2016). For example, research has shown that homelessness and adulthood victimization are detrimental to recovery (Castellow, Kloos, & Townley, 2015; Kerman, Sylvestre, Aubry, Distasio, & Schütz, 2018; Stumbo, Yarborough, Paulson, & Green, 2015). Padgett et al. (2016) proposed the concept of "complex recovery," which refers to the cumulative adversities that people with mental illness may experience (e.g., mental illness, problematic substance use, childhood abuse and neglect, incarceration, unemployment, homelessness, victimization). This broader definition of recovery may be essential to more comprehensively understand the experiences in (or from) which people with mental illness are recovering.

For people with mental illness who are living in poverty, including those experiencing homelessness, access to safe and affordable housing with the necessary supports is instrumental to fostering recovery. For example, supported housing tenants view their housing stability as the foundation to their recovery (Watson & Rollins, 2015). Moreover, supported housing furthers recovery by providing opportunities for people with mental illness to construct new identities and meaning in life, and reconnect with families, friends, and communities (Watson, Fossey, & Harvey, 2018). However, beyond housing interventions, few studies have examined how health and social services affect recovery for people with histories of homelessness.

In addition to supporting recovery, services may also be hindering when people have negative experiences or treatments are ineffective. For example, a recent synthesis of service users' perspectives identified involuntary inpatient mental health care and medication side-effects as having negative impacts on recovery in psychosis (Wood & Alsawy, 2018). People experiencing homelessness also commonly experience a range of barriers to accessing and receiving adequate healthcare (e.g., lacking identification, feeling stigmatized, being neglected or overlooked; Hwang, 2001; Martins, 2008; Wise & Phillips, 2013). These negative experiences may increase people's vulnerability to using services in ways that impede recovery by restricting treatment choices to services that do not sufficiently meet people's needs.

## Study Rationale and Objective

A range of services can be beneficial for mental health recovery. However, past research has minimally examined the effects of service use on recovery among homeless people with mental illness (Kerman, Sylvestre, & Polillo, 2016). This qualitative study investigated how currently and formerly homeless (hereinafter referred to as “housed”) people with mental illness view services in their lives using a recovery framework. Accordingly, this study addressed the research questions: [1] How do participants perceive services as affecting their recovery? and [2] Do the perceptions of homeless and housed participants differ on the relationship between service use and recovery? A pragmatic perspective was adopted for this study, accepting that the development of knowledge is fallible and prioritizing the practical utility of the findings over an ideology (Padgett, 2012).

# Method

## Recruitment and Sample

This study used a convenience sample that was comprised of adults with mental health problems who were homeless or housed. Inclusion criteria for the study were: [1] a diagnosis of a mental disorder or acknowledgement of a mental health problem (i.e., self-report); [2] currently or formerly homeless (i.e., one of more nights spent in an emergency shelter or on the street during their lifetime); [3] 18 years or older; and [4] fluency in English. Participants were recruited using recruitment posters (see Appendix E) via an emergency shelter, a supportive housing program, and an intensive case management team located in a mid-sized Canadian city. Each service was operated by a different community agency.

A total of 61 individuals were screened for the study. Two individuals were ineligible due to not self-reporting a mental health problem and five were lost prior to commencing the study (i.e., cancelled or did not attend the scheduled interview). Of the 54 participants who took part in the study, two participants were excluded from analysis (one withdrew, and one had poor quality and unreliable data). Data from 52 participants (homeless: $n = 26$; housed: $n = 26$) were analyzed. All participants provided informed consent (see Appendix F) and received a $25 honorarium for their time. The study was approved by the research ethics board of the authors' institution.

### Data Collection

Surveys and in-depth interviews were completed with participants. The survey gathered information on demographic characteristics (age, gender, current living situation, mental health problems, and medical conditions) and service use in the past year (see Appendix G). Using a three-point scale (1 = not important, 2 = slightly important, 3 = very important), participants were also asked how important various components of recovery were to them (i.e., feeling hopeful about the future, managing behavioural health symptoms, having control and choice in life, having a "normal" life, not being discriminated against and stigmatized, being seen as a person and not a patient, having meaningful social roles, being able to have social and romantic relationships). Qualitative interviews began following completion of the survey. On average, interviews were slightly longer than 75 minutes and each was audio-recorded. A semi-structured interview guide with three parts was used (see Appendix H). The first part elicited narratives from participants' lives related to their service use (e.g., "Can you tell me about a time when you used a service with which you had a very positive experience?"). Prompts and follow-up questions for the first part of the interview were informed by the McGill Illness Narrative Interview (Groleau, Young, & Kirmayer, 2006). This part of interview was intended to build rapport with the participant prior to moving on to the parts that were more focused on the study's primary research questions. Part two of the interview explored the impacts of participants' current service use (e.g., "What do these services allow you to do in life?" "What parts of your life do the services that you use not help with?"). Guided by participants' survey responses about the importance of different components of recovery, the third part of the interview involved a discussion of if and how the services that participants used were helpful to fostering recovery (e.g., “How do the services that you use help you to feel hopeful about life and things to come?”). The components of recovery that were identified as “very important” by participants were prioritized for discussion in the interview. A contact summary, as outlined by Miles, Huberman, and Saldaña (2014), was completed after each interview to document salient information related to the study’s research questions, parts of the interview that were unclear or where further information was needed, and any comments on data quality.

Data collection occurred in two phases. The first phase involved interviews with 15 participants to gain an initial sense of how people perceive the role of services in their lives, as well as how services were linked to components of recovery. The interviews were then transcribed, and the quality and content of the data were evaluated. This process helped to determine whether the study methods were suitable for exploring the research questions and if changes were needed. Small changes were subsequently made to the data collection materials (e.g., minor wording changes, addition of follow-up questions to interview guide, addition of an item on housing history to survey, revision of service labels on survey). The second phase of data collection then commenced with the revised tools. Summaries were also developed for each interview during the second phase of data collection.

### Data Analysis

All interviews were transcribed verbatim and then uploaded into NVivo 11 for analysis. A start list of codes informed by a recovery conceptual framework (e.g., choice, control and responsibility, hope, illness acceptance, equal rights and citizenship, meaningful activity involvement or social roles; Ellison et al., 2018) was then developed. Data analysis followed the procedures of first and second cycle coding as outlined by Saldaña (2013). First cycle coding involved line-by-line, descriptive coding of each transcript. Throughout the first cycle, provisional codes were modified and expanded, and additional codes and sub-codes were added, including process codes (i.e., use of gerunds to indicate action described in transcripts). Second cycle coding was then used to reorganize and condense data coded during the first cycle to develop a smaller list of broader categories and themes. Second cycle coding involved pattern coding, which is useful to condense large amounts of data into more meaningful and parsimonious units of analysis (Miles et al., 2014). Pattern codes were primarily categorical, which were then organized into emergent themes and labelled. To establish the credibility of the themes, these were then compared to the summaries of each interview. The objective was to ensure completeness of the findings and identify any diverging perspectives. Jotting (i.e., writing mental notes) was performed throughout data analysis to document the lead researcher's reflections and comments on the data and interview narratives. An audit trail was maintained throughout data collection and analysis.

## Results

The demographic, housing, and health characteristics of the sample are displayed in Table 10. Housed participants were significantly older than homeless participants ($t = 2.12$, $df = 50$, $p = .04$). No other significant differences were found in demographic information or health between the two groups. Table 11 shows the use of health, social, and community services in the past year. Participants reported a high level of importance for almost all components of recovery (see Table 12). In terms of representativeness of the sample, comparisons of the characteristics of currently homeless participants with previously published data from the At Home/Chez Soi demonstration project (Goering et al., 2012, 2014) revealed considerable overlap in gender, Indigenous status, substance use, and non-psychotic mental health diagnosis/problem rates.

However, fewer participants in this study sample were over the age of 55 years, had a psychotic disorder diagnosis, and multiple chronic medical conditions. No relevant data were available to make comparisons for the housed participants.

Thematic analysis revealed five themes related to how participants perceive health, social, and community services as affecting mental health recovery (see Table 13). Services had mostly positive impacts with regard to several recovery themes, such as finding ways to cope and get by, feeling less alone, and giving back. In contrast, the theme of being dehumanized or seen as someone involved polarizing service experiences. The final theme, encountering restrictions when getting help, demonstrated how services can impede recovery. Each theme was present in the transcripts of homeless and housed participants, though there were a few differences in the prominence of certain subthemes between the two groups.

### Theme 1: Finding Ways to Cope and Get By

Participants described mental health services as having an important role in helping them to cope with their symptoms and social conditions (e.g., living environments). Having access to medications and learning coping strategies were identified as two ways that services were helpful. For medication, participants described needing pharmacological interventions for a range of difficulties (e.g., stabilizing mood, managing chronic pain, preventing withdrawal symptoms, sleeping in a communal emergency shelter). Drawbacks were also raised by some participants who described long periods of feeling imprisoned by their medications. Said one housed participant of being on methadone to function on an everyday basis for 25 years, “It gives you that freedom but it also takes it away because you’re dependent on it. It’s like liquid handcuffs.”

As for coping strategies, participants reported that they had learned a range of skills in therapy and counselling that were useful for their recovery, such as grounding, mindfulness, self-care, and cognitive restructuring. Being able to use learned coping skills wherever and whenever was also highlighted as facilitating a sense of control, especially by housed participants. Said one housed participant, “To be the one who had the skills and executed them … I found that really, really empowering because I didn’t have to rely on anyone else to do it once I learned the skills.”

Accessible services, such as libraries and harm reduction programs, were also helpful for maintaining health and coping with stress. Community services were described as offering people a place to go during the day, which could provide respite from life at an emergency shelter or prevent isolation associated with living in a bachelor or one-bedroom apartment. For example, libraries were described as being calm environments that could be a distraction from life stress, as well as offered books, films, and access to the internet that were used as coping strategies by some participants. Services like these fostered a sense of hope and opportunity. Said one, “They give you hopefulness that there is something that you can do in your life … if you didn’t have any services, you’d have nowhere to go.” The availability of harm reduction services, such as needle exchange programs and supervised injection sites, also contributed to less stress and a sense of safety: “I can do it [use substances] safely, I don’t have to worry about me or my friends dying.”

Participants also viewed service providers, including case managers, counsellors and therapists, emergency shelter staff, and outreach workers, as being instrumental in fostering hope through encouragement and an orientation toward the future. Words of encouragement from service providers, such as “keep going,” “don’t give up,” “you’ll get there,” and “it’s only temporary,” as well as recognizing progress, were reminders to participants that somebody believed in them and served as motivation to keep working on various life goals. For participants experiencing homelessness, encouragement from case workers and other professionals could make their reality of day-to-day survival slightly more tolerable: “It gives you that little, tiny bit of hope that, maybe, you’ll get through tonight and tomorrow will be a different day.” As for participants who were currently housed and receiving ongoing support, such as intensive case management, they also emphasized the importance of working collaboratively with service providers to discuss future plans and goals: “It helps feel that one day I am going to get off this stuff [methadone]. You know? One day I’m going to have a job normally again. And, maybe have another kid, I don’t know. Just move on.”

Services could also have triggering environments with which participants had to cope. The availability and visible use of substances at homeless-serving organizations (i.e., emergency shelters, soup kitchens, and drop-in centres) could be problematic for participants who were abstinent or working to reduce their substance use. Said one participant currently staying at an emergency shelter: “Shelters probably are not the best place or service for addicts. It’s very hard to stay clean when you see a lot of other people using around you.” Though this perspective was expressed by several participants currently experiencing homelessness, it was also discussed by housed participants who reflected on their past successes in navigating these high-risk situations, which principally involved minimizing the amount of time spent at those programs, and their continued avoidance of where the services were located: “I don’t want to walk by [the emergency shelter] and I’m making a detour so I don’t see what’s going on there.” Further, because housed participants had more help-seeking options than those experiencing homelessness, they were more able to avoid services that could be triggering. In contrast, some homeless participants described having no choice but to accept support from services that were triggering to them.

### Theme 2: Feeling Less Alone

Social isolation was a prominent concern voiced by homeless and housed participants. Communal services, such as drop-in programs, soup kitchens, and churches, were identified as places where people could go to meet people and make friends. Social events held at homeless-serving organizations also provided a sense of community that could possibly lead to greater confidence in other contexts:

> It helps me feel like I am capable of being part of the community. That's one community and that is a community that is mainly for people who are suffering from street-related issues so it's like it shows me that I'm capable of belonging to a community. So, maybe, that means I can go to [community health centre for Indigenous people] where not everybody is facing street-related issues. And, then from there on, it's like, maybe, if they're not going to reject me at these two places, maybe they're not going to reject me at Canada Day celebrations … and I can go and socialize and interact with regular… whatever regular is. I can do this.

Emergency shelters also offered social opportunities, though some participants described drawbacks of friendships with other people experiencing homelessness. These included the risk of theft and exploitation: "Not everybody's gonna be a friend to you 'cause we all have our issues and there can be some that will grab, pick on something of you," "There's so much gossiping and backbiting and hurtfulness within the community of homeless women." Further, the importance of focusing on personal issues and goals was raised: "I try not to make a lot of friends when I come into the shelters and stuff because you have to worry about what you have to do and not what everyone else is trying to do." Friendships between people experiencing homelessness were also described by several homeless participants as not being normal: "I made a couple new friends but … I wish I had normal friends instead of people out here." Visiting community-based services was also identified by housed participants as being helpful for preventing social isolation: "I'm not so isolated because I can go out and talk to whomever I want." However, isolation remained an issue for one woman with a physical disability due to the lack of accessible services.

The value of mutual support between people with lived experience (e.g., homelessness, problematic substance use, mental illness) was also raised by participants. Self-help groups and group counselling were identified as offering mutual support from peers who were supportive and understanding. Describing peer support, a housed participant said, "It's a family all on its own." The sharing of experiences could serve as a reminder to participants that they were not alone in what they were going through. For example, one housed participant described the benefits of an online self-help group for people with bipolar disorder, "Just knowing that somebody knows exactly what I'm feeling at that moment. Sometimes it can lift you up a little bit and realize you are not alone anymore; you're not the only one." Informal peer support between service users was also a way of bonding to others that could make people feel good about themselves: "We'd talk and sometimes it would help them … they'd come back, 'Hey, thank you, it really helped.' I'd just smile, you know? Hey, good job."

Community services also enabled participants to connect with family. This occurred when services, often libraries, offered computers and internet that participants could use to get in touch with family. Spiritual and cultural services were another type of service that participants used to connect to family. In some cases, it was accompanying family to church and other faith groups. For others, attending spiritual and cultural services achieved closeness to deceased family: “When I go to church, I go for my mom. Because my mom’s dead and I miss her a lot,” “My mom used to make me bannock bread all the time so it reminds me of my mother.”

Relationships between service users and providers could also help people feel less alone. Participants pointed to the value of emotionally supportive relationships with key service providers, such as case workers, doctors, or counsellors, who were on their side. Said one housed participant of her mental health case manager, “I knew that I had at least one person in my corner … I don’t think I would have been able to go to treatment the last time, the one that helped me stay clean, without them.” Another participant who was homeless described how feeling supported by a new doctor allowed the relationship to grow, “I felt like I had someone on my side for once and also, as I kept seeing him, like the relationship grew and grew.” The reliability of relationships with service providers during tumultuous periods of people’s lives, which often involved social support losses, was also discussed: “The one thing through all of that – my friends bailed, everybody bailed – I had that caseworker.” However, the supportiveness of relationships with service providers could be affected by perceptions of organizational approaches to treatment and care. Services were contrasted as either having “helping” approaches that were respectful and client-centred or “policing” approaches that involved service providers having authority and power over service users:

> There’s treating and then there’s like policing. Right? So, you know, the [emergency shelter] staff would treat their residents like how they would want to be treated and sort of took people where they’re at, whereas [different emergency shelter] was more to police people.

### Theme 3: Giving Back

Services that offered volunteer or employment opportunities provided a way for current and former service users to give back. This theme was more prominent among the housed group; however, those experiencing homelessness also discussed contributing in ways that did not require commitments or were planning to give back in the future. Participants described helping out at programs that were important to their own recovery. Said one housed participant who helped out in multiple roles serving homeless women with substance use problems, “I am an employee of the shelter that I used to stay in. I volunteer for a not-for-profit that means something to me.” Because employment was not feasible for all given people’s disabilities or work restrictions of disability income programs, some were focused on giving back through volunteering: “What’s important to me is being a part of society. So, if I can’t work then I will volunteer.” For participants who were homeless, some looked for ways that they could help out around the shelter: “I ask the management to give me something to do in my time. Sometimes, I say, ‘Give me dirty clothes to wash or like towels’ … this is what I do and I’m happy to do.” For two homeless participants who were unable to volunteer on a regular basis at the emergency shelter, both hoped that they could return to the shelter to help out when they were housed or further along in their recovery. Helping out at services during an episode of homelessness could also reinforce a sense of personhood: “It makes you feel like you’re somebody.”

Another unique way that participants gave back was through their involvement in activities related to advocacy and service delivery. Participants described being members of an association that advocated for people who panhandled and were experiencing homelessness, as well as attending or helping out with grassroots harm reduction initiatives and protests. One participant described handing out educational material locally on harm reduction, “I’m a big supporter. The process is good, mostly it's word-of-mouth and handing out literature. Like, the SIS – the safe injection sites – are very important. I've had a lot of friends die in the last year alone." As for service delivery, housed participants described sitting on a board of directors and being involved in consultation work related to program development. One participant felt good that his involvement in consultations helped "to strengthen bonds between service provider and recipient."

### Theme 4: Being Dehumanized or Seen as Someone

The interpersonal interactions involved in service use were a key part of participants' experiences that could affect their perceptions of self-worth, as well as their views of health and social services. Participants described polarizing experiences when using services that ranged from being deprived the bases of human dignity to being seen as a person and treated fairly and with respect. The verbal and nonverbal communication of service providers contributed to perceptions of the level of respect in treatment and care. Overhearing stigmatizing language and comments (e.g., "junkie," "street person," "you're here again"), being spoken to in a patronizing or belittling way, and feeling ignored or dismissed were common experiences of disrespect. One participant described the impacts of having a medical appointment be rescheduled multiple times, "It's another way of being brushed off … it's another way of being undervalued." Participants also described observing the treatment and care of others to evaluate whether they were being treated equally. Favouritism by service providers was identified as leading to inequitable care and could force behavioural change. Said one housed participant, "You start to feel like you have to be a certain kind of person in order to get the right care so that can lead to a sense of hopelessness and despair because some people are favoured and some people are not." Overall, these experiences of discrimination were discussed by both housed and homeless groups; however, being homeless was an additional and more visible reason for prejudice when using services (e.g., being unable to provide a fixed address when completing paperwork, wearing worn clothing). Fair and respectful treatment experiences were described as an absence of disrespectful communication, being greeted with welcoming comments, the establishment of zero tolerance policies for violence and discrimination, and personal care that is the same as other service users. Said one, “You get treated different according to the medical aspect but not the support aspect.”

The importance of being seen for who people are and not being defined by a mental illness, substance use problem, or living situation was also discussed. However, almost all participants described past service experiences in which they had experienced discrimination because of their health or poverty. These included instances where participants’ views were questioned by health professionals and medications withheld due to substance use histories. Among participants who currently or formerly used substances, there was an expressed sense of being “marked” at medical services. Said one participant who sought treatment for an infection, “It was not a needle inflicted injury but it could’ve been. It was very much something that appeared that way and he [the doctor] kept coming back to it. Like, ‘So, you got that from needles, right?’” Homeless participants also described discrimination in the form of “half-assed” treatment and care, and experiences of feeling like a number in the shelter system or not being seen as a person at all. One homeless participant commented:

> My favourite joke is like: Just cross the police line and them be, “Excuse me a minute.” “Oh, don’t worry about it, don’t worry, it’s okay, it’s okay, I’m homeless.” No one cares. I don’t live anywhere, nothing matters. If I was to die, no one would care. I’m just a burden.

Despite the many service experiences involving stigma and discrimination, participants also described service providers as having the ability to help people regain or maintain their sense of personhood. This was achieved when providers knew service users' names, asked questions, were honest and expressed their concerns, made compassionate gestures (e.g., staying late to talk, offering food or a drink when meeting), saw and commented on strengths, and used person-first language. One homeless participant described the impact of his case worker bringing him coffee, "It makes me feel like a person; he treats me like a person and not seen as a homeless person or not seen as someone with HIV that's struggling." Another commented on how it felt when a new doctor asked questions to get to know her:

> He's like, "So, what do you do for fun?" And, "What do you do for work?" Like, "Tell me about you." "Where are you from?" Like, really trying to get to know me and not actually seeing me as a number and trying to get me out of his office.

Person-centred program policies and approaches were also identified as helping participants to be seen for who they are. For example, services that did not turn people away due to intoxication were perceived as being understanding of people's challenges and their need for help: "They accept you even when you are so drunk." Counselling was also identified as an opportunity to learn that people are not defined by their illness.

### Theme 5: Encountering Restrictions When Getting Help

Barriers to treatment and care were common experiences that could impede recovery. Participants described limited to no choice, and inflexible program rules and requirements as restrictions they experienced when accessing services. Limited treatment and care options were most commonly discussed in the context of opioid substitution therapy, with people reporting that they had only two treatment options: methadone or buprenorphine. The few options were discussed as leading to or maintaining a pattern of self-medication with illicit substances: “They’re trying to prescribe me other medications to help the things I’m already helping with the medications that I have chosen.” As previously noted, service options were more limited for participants experiencing homelessness; however, lack of choice was also experienced by housed participants as a result of need: “Poverty line is around $18,000, we make $10,000 [on disability income] … I have no choice but to access the food bank or the drop-in centre.”

Lack of information and transparency about available services also prevented participants from being able to make choices and achieve a sense of control in treatment and care decisions. This barrier was discussed when interacting with income support programs and overworked case managers. Some participants reported that they felt uninformed and, if they did not ask questions, options were not communicated. This occurred when participants needed support but did not know what was available, as well as when using a program that offered multiple services of which participants were unaware. Said one, “They have all kinds of stuff that they have … but you don’t know anything about it. So, you’ll be with them for months and then you’re like, ‘Now, you’re telling me that I could’ve done this?’” Poor communication by income support programs was highlighted: “If you don’t know what you’re entitled to, they won’t tell you.” Further, service providers that were perceived as nonresponsive to inquiries and questions could perpetuate service users’ lack of knowledge. For example, one homeless participant reported not receiving call-backs from a case worker, “You almost have to find your own answers to your own questions.” Restricted treatment and care could also occur when decisions were not explained to service users yet they felt unable to speak up because they were uninformed: “You don’t question that because you do not know better. It’s his job, he decides.”

Program rules and requirements was another restriction of service use. This concern was prominent among the currently homeless group as it was reportedly common within homeless-serving organizations. Participants discussed the problems that arose from set hours of operation and requirements for service use (e.g., attending a chapel service to receive a meal at the soup kitchen, leaving the emergency shelter each day by a certain time, taking medication to receive a service). A small number of participants reported that they had to break rules to meet their needs. For example, one participant described having to store food in the emergency shelter against the rules because the hours of operation of meal programs were incompatible with her physiological needs: "You have to break the rules. There's no way around it because you need to eat when you're hungry and that's something you have to do for your body." Although there was some reported rule breaking or circumvention, more commonly participants described abiding by the shelter rules out of fear of service loss. The greatest concern was being banned from a service as this would further reduce treatment and care options. One participant described the threat of being referred (i.e., temporary ban and referral to another emergency shelter in the city):

> You are allowed to sleep until 9:30 and they come around, 'Okay, it's 9:30, do you guys want to be referred?' … and everybody goes, 'Okay, I guess I got to get up now or else they will refer me.' Especially in the winter, you don't want to be referred in the winter.

This fear could make participants feel powerless and voiceless, especially when they experienced unfair or inadequate treatment: "If you react, you get kicked out for a day and then you have to go to another shelter. So, there is no point in reacting to it." Others described feeling as though they had no right to speak up about the treatment they received or that their concerns would be ignored. For example, one homeless participant said, "I don't have a right. Why? Because I live here [emergency shelter] and I have to take what they give me." Another added, "You have nobody to complain to because, if you do start to complain, well, you're just some homeless guy that's just crying about something that he doesn't get for free."

## Discussion

This study qualitatively explored how people with mental health problems and histories of homelessness view services as contributing to their recovery. Findings showed that services were perceived to promote recovery by helping people to find ways of coping and getting by, providing opportunities for socialization and connection, and making available opportunities to contribute and give back. In addition, participants described polarizing experiences with regard to how they were viewed by providers when using services. Service providers that saw people who were accessing services for who they were could have a positive impact on recovery. However, dehumanizing experiences in which service users were seen as their health conditions or living situations were commonly reported. The findings underscore the importance of the human aspect of service delivery in contributing to recovery, which is consistent with past research (Kidd, Davidson, & McKenzie, 2017). Working alliances that are grounded in trust, respect, fairness, and honesty are likely to contribute to recovery among people with mental illness who have histories of homelessness and have previously experienced stigma and discrimination when using services.

Services could impede recovery when participants encountered restrictions during help-seeking, such as having limited choice and options in treatment and care, and abiding by service rules and requirements to receive care. These restrictions partially reflect systemic issues related to income support rates being insufficient to meet basic needs without the assistance of services and unaffordability of healthcare services not covered by provincial health insurance (e.g., certain medications). Lack of information and transparency was another restriction that undermined service users’ choice and control in treatment and care. Accordingly, ensuring that service users know and understand what is available to them, as well as their rights and responsibilities, when accessing health and social services would likely reduce informational barriers to appropriate treatment and care. For people staying in the shelter system, case workers can work with service users to foster their sense of choice and control in treatment and care by collaboratively identifying needs, helping with system navigation, providing information and discussing available services, and addressing concerns related to making service use changes.

The perspectives of homeless and housed participants were similar, with few differences found between the two groups. However, experiences of discrimination and limited service options were heightened among homeless participants. As a result, this group sometimes perceived that they did not have a choice but to abide by service rules and requirements, and tolerate environmental triggers to receive treatment and care. Nevertheless, the perceived ways in which services could further or impede recovery were similar between the two groups. The findings suggest that participants in this study accessed services to address needs related to social connection, health and functioning, and meaningful activities that are not bound to episodes of homelessness. Moreover, as all housed participants were receiving disability income/social assistance, it is important to recognize that many individuals of this group likely continue to live in poverty – a finding that has also been identified in past Housing First research (Henwood, Derejko, Couture, & Padgett, 2015). As such, aside from housing, the recovery needs of the two groups may be quite similar.

Similar to past research examining recovery among people with mental illness who have histories of homelessness (e.g., Choy-Brown, Padgett, Smith, & Tiderington, 2016; Padgett, Smith, Henwood, & Tiderington, 2012; Padgett et al., 2016), participants in this study reported experiencing many adversities beyond their mental health and housing, such as substance use problems, trauma and victimization, chronic medical conditions, incarceration, sex work, social isolation and loneliness, and food insecurity. Given the multiple challenges, participants often discussed recovery more broadly, holistically considering the issues that they faced. Moreover, a single service experience could be linked to multiple adversities (e.g., feeling stigmatized because of substance use and homelessness). These findings would support a conceptualization of complex recovery, as proposed by Padgett et al. (2016), that refers to the cumulative adversities encountered by people with mental illness who have histories of homelessness. This broader framework is necessary for considering the interconnectedness of different adversities and the multiple systems that may be necessary for furthering recovery.

The findings in this study have implications for policy and service delivery. The multiple and interconnected adversities and challenges experienced by people with mental illness and histories of homelessness requires the presence and coordinated action of a range of service systems. Without this, even successful, large-scale efforts to address one problem may be insufficient for effecting meaningful change with regard to the other challenges faced by the population. For example, initiatives to reduce homelessness may reduce lengths of stay at emergency shelters and the overall number of people living on the streets; however, without consideration of stagnant disability income rates, food insecurity, social isolation, and access to appropriate mental healthcare, people exiting homelessness will continue to encounter multiple barriers associated with poverty that impede recovery. Embedding wraparound supports to address these basic needs within permanent housing models is key to promoting recovery of people with histories of homelessness. Further, recognizing and supporting harm reduction services and grassroot initiatives led by people with lived experience is essential in the context of the ongoing overdose crisis. Participants in this study not only described the value of these services with regard to staying alive but also as an opportunity to access support from caring and understanding people, and give back through volunteerism and participation in advocacy.

This study had several limitations. First, because a convenience sample was used, the findings may not be representative of all adults with mental health problems and histories of homelessness. Moreover, as completion of the study took approximately 75-90 minutes, it is possible that participants' level of functioning was above average for this population. Nevertheless, as previously noted, the similarities in characteristics between the homeless participants in this study and previously published data provide a degree of confidence in the representativeness of the sample. Second, the study had a qualitative cross-sectional design. As a result, housed participants may have had different service experiences during homelessness than the participants in the homeless group. Data were also unavailable on episodes and lengths of past homelessness, which may have differed between the two groups. Third, the analysis did not explore differences in how services affect recovery within groups by gender or age – factors that may affect which services are used by people with mental health problems and histories of homelessness, as well as their experiences (Bartels & Pratt, 2009; Kidd et al., 2013). Fourth, this study did not measure participants' level of recovery. It is likely that participants had differing levels of recovery, which may have shaped their perceptions of how services affect recovery. Moreover, the ways in which services promote or impede recovery may differ by service users' recovery goals and progress. Future research should consider examining the role of services in the lives of adults with mental illness and histories of homelessness who are at different levels of recovery.

## Conclusion

Health, social, and community services were perceived to promote the recovery of currently and formerly homeless people with mental illness by helping them to find ways of cope and get by, providing opportunities for socialization and connection, and making available opportunities to contribute and give back. Although services could also have positive impacts on recovery by seeing service users for who they were, too commonly this was not the case as participants often felt defined by their health conditions or living situations when accessing services. Restrictions related to seeking help also impeded recovery. Findings differed minimally between the two groups, suggesting that formerly homeless participants may continue to live in poverty and have similar service experiences as those who are homeless. Moreover, as participants described experiencing multiple life adversities, a broader conceptualization of recovery is beneficial for understanding the helpfulness of services in promoting recovery for this population.

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Table 10. Demographic, housing, and health characteristics of sample ($N = 52$).

| | Homeless ($n = 26$) | | Housed ($n = 26$) | |
|---|---|---|---|---|
| Characteristic | *n* / *M* | % / *SD* | *n* / *M* | % / *SD* |
| Gender | | | | |
| Male | 14 | 53.9 | 9 | 34.6 |
| Female | 12 | 46.2 | 16 | 61.5 |
| Transgender female | 0 | 0 | 1 | 3.9 |
| Age (years) | 41.85 | 8.80 | 47.62 | 10.73 |
| Indigenous† | 4 | 23.5 | 6 | 28.6 |
| Living situation type | | | | |
| Emergency shelter | 26 | 100.0 | | |
| Supported housing* | | | 9 | 34.6 |
| Social housing | | | 8 | 30.8 |
| Market rent housing | | | 3 | 11.5 |
| Supportive housing | | | 3 | 11.5 |
| Living with family or friends | | | 2 | 7.7 |
| Rooming house | | | 1 | 3.9 |
| Current length of homelessness/housing (years)† † | 2.43 | 3.26 | 5.44 | 4.39 |
| Mental health | | | | |
| Unipolar depressive disorder/problem | 12 | 46.2 | 11 | 42.3 |
| Post-traumatic stress disorder | 11 | 42.3 | 8 | 30.8 |
| Bipolar disorder | 5 | 19.2 | 10 | 38.5 |
| Anxiety disorder/problem | 8 | 30.8 | 7 | 26.9 |
| Attention-deficit and hyperactivity disorder | 7 | 26.9 | 5 | 19.2 |
| Schizophrenia | 3 | 11.5 | 4 | 15.4 |
| Personality disorder | 4 | 15.4 | 2 | 7.7 |
| Problematic substance use | 17 | 65.4 | 15 | 57.7 |
| Concurrent mental health and substance use problem | 15 | 57.7 | 15 | 57.7 |
| Number of chronic medical conditions | 1.85 | 2.31 | 2.38 | 3.45 |

* Includes participants living in both scattered-site and congregate housing as part of the supported housing program.

† Data missing for 14 participants (homeless: $n = 9$; housed: $n = 5$) due to changes to the survey during data collection; percentages computed for $N = 38$

†† Data missing for 10 participants (homeless: $n = 8$; housed: $n = 2$) due to changes to the survey during data collection

Table 11. Service use in the past year.

| | Homeless ($n$ = 26) | | Housed ($n$ = 26) | | |
|---|---|---|---|---|---|
| Service | *n* | % | *n* | % | *p* |
| Health services | | | | | |
| Medication management/pharmacy | 16 | 61.5 | 25 | 96.2 | <.01 |
| Community health centre | 13 | 50.0 | 22 | 84.6 | <.01 |
| Family doctor | 12 | 46.2 | 22 | 84.6 | <.01 |
| Peer support and self-help groups | 12 | 46.2 | 20 | 76.9 | .02 |
| Emergency department | 17 | 65.4 | 14 | 53.8 | ns |
| Walk-in clinic | 14 | 53.8 | 17 | 65.4 | ns |
| Dentist | 8 | 30.8 | 15 | 57.7 | .05 |
| Psychotherapy and counselling | 7 | 26.9 | 11 | 42.3 | ns |
| Harm reduction* | 9 | 34.6 | 8 | 30.8 | ns |
| Case management | 5 | 19.2 | 12 | 46.2 | .04 |
| Outpatient hospital services | 6 | 23.1 | 10 | 38.5 | ns |
| Hospitalization | 8 | 30.8 | 7 | 26.9 | ns |
| Municipal public health department | 4 | 15.4 | 7 | 26.9 | ns |
| Community-based mental health team† | 5 | 19.2 | 2 | 7.7 | ns |
| Social services | | | | | |
| Disability income/social assistance | 23 | 88.5 | 26 | 100.0 | ns |
| Public transportation | 22 | 84.6 | 26 | 100.0 | .04 |
| Drop-in centre, soup kitchen, or meal program | 24 | 92.3 | 20 | 76.9 | ns |
| Housing support | 14 | 53.8 | 18 | 69.2 | ns |
| Food bank | 13 | 50.0 | 19 | 73.1 | ns |
| Emergency shelter | 26 | 100.0 | 5 | 19.2 | <.001 |
| Street/homeless outreach | 11 | 42.3 | 7 | 26.9 | ns |
| Identification services | 9 | 34.6 | 8 | 30.8 | ns |
| Legal aid | 8 | 30.8 | 3 | 11.5 | ns |
| Employment support | 3 | 11.5 | 8 | 30.8 | ns |
| Training program | 2 | 7.7 | 3 | 11.5 | ns |
| Education support | 0 | 0 | 5 | 19.2 | .04 |
| Child and family services | 0 | 0 | 2 | 7.7 | ns |
| Community services | | | | | |
| Library | 15 | 57.7 | 12 | 46.2 | ns |
| Community centre | 9 | 34.6 | 11 | 42.3 | ns |
| Religious and spiritual services | 9 | 34.6 | 11 | 42.3 | ns |
| Organized neighbourhood activities | 4 | 15.4 | 9 | 34.6 | ns |
| Leisure-based social group | 3 | 11.5 | 8 | 30.8 | ns |

* Includes needle/crack pipe exchange, supervised injection (operation of a grassroots service began midway through data collection for this study), and managed alcohol programs.

† Excludes intensive case management

Table 12. Importance of components of recovery.

| | Homeless (*n* = 26) | | Housed (*n* = 26) | |
|---|---|---|---|---|
| Component of recovery | *M* | SD | *M* | SD |
| Being in control of your body | 2.92 | 0.27 | 3.00 | 0 |
| Having equal rights to other citizens | 2.96 | 0.20 | 2.92 | 0.39 |
| Feeling responsible and having control over the choices that affect your life | 2.88 | 0.43 | 2.96 | 0.20 |
| Being able to be seen as more than a person with mental illness or a patient | 2.85 | 0.46 | 2.96 | 0.20 |
| Having respect for yourself and being respected by other people | 2.81 | 0.57 | 2.96 | 0.20 |
| Being aware of and able to manage mental health symptoms | 2.81 | 0.49 | 2.85 | 0.37 |
| Being free to develop friendships and romantic relationships with the people that you want | 2.77 | 0.59 | 2.85 | 0.46 |
| Feeling hopeful about life and things to come | 2.73 | 0.60 | 2.88 | 0.33 |
| Being free to express your emotions, feelings, opinions, and religious beliefs | 2.73 | 0.60 | 2.69 | 0.55 |
| Having the ability to have meaningful social roles | 2.62 | 0.64 | 2.69 | 0.62 |

*Note*. Mean scores were computed for each item that had a three-point scale (1 = not important, 2 = slightly important, 3 = very important).

Table 13. Identified themes and subthemes, and related components of recovery.

| Theme | Subthemes | Component of recovery |
|---|---|---|
| Finding ways to cope and get by | Having skills or medication to function<br>Having accessible services in the community<br>Being encouraged and looking ahead<br>Abstaining from substance use at and around homeless-serving organizations | Symptom management<br>Hope |
| Feeling less alone | Having somewhere to go to meet people and make friends<br>Having at least one person on your side<br>Finding peers with shared experiences<br>Connecting to family | Connectedness to others<br>Mutual support |
| Giving back | Helping out at a program as a volunteer or paid employee<br>Informing service delivery and participating in advocacy | Involvement in meaningful activities and social roles |
| Being dehumanized or seen as someone | Being treated with or without respect<br>Being seen as a person versus defined by a mental illness, substance use problem, or living situation | Respect and acceptance<br>Redefined self |
| Encountering restrictions when getting help | Having limited choice and options of treatment and care<br>Abiding by service rules and requirements<br>Using a service without knowing what else is available | Control and choice over life choices<br>Self-direction |

*Note*. Components of recovery drawn from Ellison et al. (2018).

# Surviving versus Living Life: Capabilities and Service Use among Adults with Mental Illness and Histories of Homelessness

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Study presented here as a modified version of a manuscript submitted to a peer-reviewed journal with minor formatting changes for continuity with the rest of the dissertation.

## Abstract

The capabilities approach is a framework that can be applied to marginalized populations, including people with mental illness and histories of homelessness, to measure well-being. Although a range of health and social services exist to address the many challenges associated with mental illness and homelessness, the extent to which these services impact capabilities is unknown. This qualitative study explored the perspectives of people with mental illness and histories of homelessness to understand how they viewed their service use to affect their capabilities. In-depth interviews were conducted with 52 adults with mental illness who were currently or formerly homeless and living in a mid-sized Canadian city. Findings showed that participants perceived many capability impairments in their lives, including nutritious food scarcities, limited material rights, social role deprivations, isolation and exclusion, and insufficient income to participate in recreational activities. Services used by currently and formerly homeless people with mental illness were found to have mixed, for better or worse, and limited effects on their capabilities (e.g., did not help with home ownership, unable to overcome affordable housing shortages). Overall, the capabilities approach offers a comprehensive, human rights-based framework that is relevant to people with mental illness and histories of homelessness but the services used by this population primarily help people to *survive* life but not necessarily *live* life.

# Introduction

Mental health systems have undergone a widespread reorientation toward a recovery paradigm over the past several decades. However, skepticism has emerged regarding whether recovery-oriented mental health services will be able to achieve the transformational outcomes that they have has sought (e.g., Hopper, 2007). It has been argued that the prioritization of individual-level changes in recovery neglects the structural barriers that people with mental illness encounter, such as poverty (Frederick, Tarasoff, Voronka, Costa, & Kidd, 2017; Sylvestre, Notten, Kerman, Polillo, & Czechowki, 2018). The capabilities approach, as developed by Sen (1992) and Nussbaum (2000, 2011), has been proposed an alternative framework for measuring well-being among marginalized populations, including people with mental illness.

Capabilities are freedoms that humans either have or do not have to live life as they choose. They are distinct from functionings, which are the achieved outcomes of capabilities (Sen, 1992). The goal of the capabilities approach is to develop or restore people's freedoms as opposed to furthering their functionings (Nussbaum, 2011). A central set of 10 capabilities has been proposed by Nussbaum (2000), which include: life; bodily health; bodily integrity; sense, imagination, and thought; emotions; practical reason; affiliation; other species; play; and control over one's environment (political and material). The central capabilities are not mutually exclusive and may not be exhaustive but represent a set of items that extend beyond the outcomes typically studied and sought by mental health services (Shinn, 2015). Davidson, Ridgway, Wieland, and O'Connell (2009) argued the basis that capabilities are human rights necessary for living a healthy and meaningful life is missing from recovery-oriented mental health services.

Homelessness is associated with pervasive impairments of capabilities. For example, people who are homeless are at high risk of dying prematurely (*life*; Fazel, Geddes, & Kushel, 2014; Roncarati et al., 2018), developing chronic medical conditions (*bodily health*; Beijer, Wolf, & Fazel, 2012; Fazel et al., 2014), having poor nutrition (*bodily health*; O'Campo et al., 2017), being assaulted (*bodily integrity*; Kushel, Evans, Perry, Robertson, & Moss, 2003), experiencing stigmatization and discrimination (*affiliation*; Phelan, Link, Moore, & Stueve, 1997; Skosireva et al., 2014), and being unemployed and encountering barriers in returning to the workforce (*practical reason*; Poremski, Distasio, Hwang, & Latimer, 2015; Poremski, Whitley, & Latimer, 2014). Moreover, mental illness compounds the negative effects that poverty has on capabilities. In a mixed-methods study of people with mental illness that included many experiencing homelessness and unemployment, Benbow, Rudnick, Forchuk, and Edwards (2014) found that participants perceived their mental illness to have negatively impacted employment and education opportunities (*practical reason*), housing and food security (*bodily health*), and sense of belonging (*affiliation*).

A range of social and health services exist to address the multiple challenges faced by people experiencing homelessness. These services may have varying impacts on capabilities. Shinn (2015) used Housing First, a supported housing model, to illustrate how a program increases people's capabilities of *bodily integrity* through the provision of private apartment where people can go as they like, *practical reason* through the prioritization of tenant control and choice over treatment and care, and *other species* through assistance with finding housing that is pet friendly. However, it is unclear how other homeless-serving programs are able to help people experiencing homelessness to achieve greater freedoms. Moreover, the perspectives of people experiencing homelessness on the helpfulness or unhelpfulness of health, social, and community services have been minimally examined. Given the complexities of service systems and social policies, removing barriers necessary to restore freedoms requires input and action from multiple groups, including people with lived experience (Davidson et al., 2009)

The objective of this study was to qualitatively explore the perspectives of people with mental illness and histories of homelessness with regard to their capabilities. In particular, we explored how participants viewed services as affecting their well-being using a capabilities framework. As half of participants were currently homeless and the other half were formerly homeless, differences between the two groups were also examined.

## Method

This study had a convenience sample of 54 adults with mental illness who were currently or formerly homeless. Individuals were eligible to participate in the study if they: were 18 years of age or older, had a diagnosis of a mental disorder or self-reported a mental health problem, had spent one or more nights in an emergency shelter or on the street, and spoke English. To achieve a diverse sample of participants who used an array of services, recruitment occurred via three community agencies (an emergency shelter, a supportive housing program, and an intensive case management team) that provided services in a mid-sized Canadian city. Two participants were removed from analysis due to poor quality data ($n = 1$) and study withdrawal ($n = 1$). The final sample used in analysis consisted of 52 participants – 26 of whom were currently homeless and 26 of whom were housed with a past history of homelessness. All participants provided written consent and the study was approved by the research ethics board of the authors' institution.

Data were collected using in-depth interviews. A three-part, semi-structured interview guide was used. The first part of the interview was intended to build rapport with the participant and explored participants' positive and negative experiences using services. To elicit narratives during the first part of the interview, prompts and follow-up questions were informed by the McGill Illness Narrative Interview (Groleau, Young, & Kirmayer, 2006). The second part of the interview served as a bridge between the other parts and asked participants to describe how the services that they used in the past year were helpful or unhelpful. The third part of the interview involved a continuation of this discussion guided by the central capabilities framework (Nussbaum, 2000). For example, questions asked: "How do the services that you use help you to be free to enjoy the activities and do the things that you like, such as hobbies and interests?" "What helps you to be free to have pets or plants in your life?" On average, interviews lasted slightly longer than 75 minutes. A survey was also completed with participants that collected data on demographic characteristics (age, gender, current living situation, mental health problems, and medical conditions) and service use in the past year.

There were two phases of data collection. The first phase was intended to determine whether the study protocol, including interview guide, was appropriate for addressing the research questions and if any changes were needed. Interviews were held with 15 participants (housed: *n* = 5; homeless: *n* = 10), which were audiotaped then transcribed verbatim. The lead author then reviewed the transcripts and completed a contact summary for each interview (Miles, Huberman, & Saldaña, 2014) that detailed the salient information related to the research questions, identified parts of the interview that were unclear, and described the quality of the data. From the information recorded in the contact summaries, minor changes were made to the data collection tools (i.e., rewording of some questions in the interview guide and items on the survey, additional prompts added to parts of the interview guide). The second phase of data collection then began with the revised interview guide and survey. A contact summary was also completed for each interview during the second phase.

Data analysis involved first and second cycle coding as outlined by Saldaña (2013), which was performed by the lead author. A start list of deductive codes informed by Nussbaum's (2000) central capabilities framework was developed. First cycle coding in NVivo 11 then began using line-by-line, descriptive coding of each transcript. Data were drawn from all three parts of the interview. Provisional codes were modified and expanded during the first cycle to accommodate emergent narratives. Second cycle coding was then undertaken using focused coding to categorize the data within the broadly applied capability codes. This process involved identifying coded data of greatest salience, which were then organized into categories and subcategories (Charmaz, 2006). Following this, each category and subcategory were compared to the other ones to understand the relationships between capabilities. A comparison to the summaries of each interview was then performed to ensure that the findings were complete and identify any diverging perspectives that were lost during data analysis. Through data collection and analysis, an audit trail was maintained and jotting (i.e., writing mental notes) was performed to document the lead author's reflections and comments on the data and interview narratives.

## Results

### Sample Characteristics

As shown in Table 14, the housed and homeless groups were similar in gender, mental health problems, and chronic medical conditions; however, housed participants were significantly older than homeless participants ($t = 2.12$, $df = 50$, $p = .04$). All homeless participants were staying in an emergency shelter. Of the 26 housed participants, a variety of accommodations were identified: supported housing ($n = 9$, 34.6%), social housing ($n = 8$, 30.8%), market rent housing (*n* = 3, 11.5%), supportive housing (*n* = 3, 11.5%), living with friends and family (*n* = 2, 7.7%), and rooming house (*n* = 1, 3.9%). Eight housed participants (30.8%) reported that they were looking or waiting to move to new housing. On average, currently homeless participants had been homeless for 2.43 (*SD* = 3.26) years and housed participants had been housed for 5.44 (*SD* = 4.39) years.

## Service Use and Capabilities

Findings are presented and organized here, including by name, according to Nussbaum's (2000) central capabilities framework. Descriptions and an overview of the findings for each of the ten capabilities is presented in Table 15.

**Life.** When describing the first capability of life, housed and homeless participants described health services as helping to prevent death. A variety of examples were given, including counselling and therapy to address suicidal ideation; medications to treat serious health conditions, such as HIV; smoking cessation to reduce tobacco use; supervised consumption sites to prevent or reverse overdoses; and emergency hospital treatments and surgeries. Said one housed participant, "I thought of suicide every day. Every day of my life until I met up with this psychologist … she really helped me, just by talking." In contrast, two participants described past service experiences as leading to suicide planning and attempts. For a homeless participant, this was the result of being refused counselling during a period of distress, whereas medications that inefficiently managed pain led to planning for a housed participant.

Another way that services reduced the risk of premature death was by supporting people to exit homelessness. However, one homeless participant emphasized the importance of housing location: "Where can I afford to live? Like, 'Let's go put you over there where you don't wanna be.' I'll just end up killing myself." Access to food services was also identified, especially by homeless participants, as preventing starvation: “If it wasn’t for the food bank, I would starve.” A divergent view held by a small number of participants was that services did not help to live a longer life and, instead, these participants perceived this to be the result of genetics, personal lifestyle choices, or luck.

**Bodily health.** Almost all participants discussed health, social, and community services as having an impact on their physical and mental health, though the effects were sometimes limited. Health and social care helped primarily by preventing problems from developing or treating existing conditions. With regard to prevention, syringe and crack pipe exchange services were identified as providing safe supplies to reduce the risk of contracting communicable diseases, as well as water and vitamins to prevent nutritional deficiencies and dehydration. Said one formerly homeless participant on the impact of needle exchange programs in his life, “It’s kept me disease-free. I have no Hep C or HIV.” Some female participants reported that they received birth control prescriptions to prevent sexually transmitted infections and unintended pregnancy.

Unique to homeless participants were their identification of the important roles of foot care in illness prevention and drop-in centres to get warm. Said one homeless participant, “Foot care … includes a foot soak, ingrown toenails removed for you … they thought I was going to lose my baby toe this year because I got frozen but luckily for me, all the colour’s back in the toe.” As for treatment of existing health problems, a range of medical services were discussed by participants but, most prominently, these included: medications to treat mental illness, substance use problems, and sexually transmitted infections; counselling to change thinking patterns and solve problems; and dentistry services. A number of participants also emphasized the role that they themselves had in their health through the choices they make. This group downplayed the role of services and, instead, attributed themselves to be the agents of change: “It depends on how you treat yourself … starts with yourself. Me, myself, and I first.”

Assistance to obtain and maintain housing was another way that services affected health. Most notably, financial supports were discussed as a way of helping people to afford housing and, subsequently, lessening worry. Said one formerly homeless participant of disability income supports, “It’s stabilized life a little bit because they pay out significantly more than social assistance so you’re more comfortable, you’re less stressed about financial situations.” However, even with financial supports, participants still encountered challenges related to affordability and costs of living: “The rent is going up, food’s going up, and our cheques don’t go up.” Moreover, though financial supports were seen by most as necessary to obtain housing, requirements to qualify for benefits could worsen mental health:

> In order to get my apartment from [social housing], I have to lose everything. To me, that’s backwards. That’s going downhill rather than uphill … I had to lose all my furniture and most of my clothing and whatnot, it’s very depressing and it probably contributed even more so to my depression.

Other ways that services helped participants to obtain housing were through assistance with searching for apartments (e.g., viewing rental listings on computers at the library, using public transportation or case managers to visit apartments) and rental applications (e.g., obtaining replacement identification from identification clinics, accessing psychiatrists for assessments needed for housing or disability income supports applications). Some participants also acknowledged that support services were unable to overcome structural issues, such as the lack of affordable housing shortages in the city.

Though food services helped to prevent starvation, as previously discussed, there was a general consensus among participants that food banks and soup kitchens did not provide nutritional food. Said one homeless participant, “There’s no nutritional value. None. The way you feed poor people is lots of carbs. That’s just it. Pasta and bread, every day of my life. Rice and bread, every day of my life.” The health consequences of eating innutritious food was discussed: “When you eat a plate of slop, you feel like a plate of slop.” Participants also expressed concern about food poisoning due to spoiled or uncooked food: “Sometimes our meat is not properly cooked … I have to be very careful and choose carefully what I eat, which I shouldn’t have to, like I should be able to eat the food and not have to worry.” Some participants noted variability in the quality of food provided by food banks but limits to service use prevented regular access to nutritional food: “You’re only allowed once a month and they only give you a week’s worth of food.” There was again variability in perspectives on whether or not disability income support rates were sufficient to allow participants to eat nutritiously. This included a view held by a small number of participants that it was not services that provided this freedom but rather employment: “That’s where work comes in. That’s the only way I can eat healthy.”

**Bodily integrity.** Of the three components of bodily integrity as proposed by Nussbaum (2000) – freedom of mobility, safety from violence, and opportunities for sexual satisfaction and reproductive choice – the former two were widely discussed in relation to service use. Services were perceived as having varying effects on freedom of mobility. For example, public transportation and programs that provided financial assistance for bus fare enabled currently and formerly homeless participants to travel within the city. However, leaving the city was viewed by some to be unfeasible due to lack of affordable transportation: “visiting family, go to cottage, there’s no buses.” Another restraint to people being able to go where they like was requirements to attend services, such as a methadone clinic or public trustee daily. Several participants reported that, although methadone allowed them to function, visiting the clinic to receive it on a regular basis restricted their movements, “I have to call the doctor, get my methadone, make sure I know wherever I’m going if there’s a methadone clinic there … when it comes to like leaving, I’m in handcuffs. I’m cuffed here.” For homeless participants, similar restrictions to daily mobility resulted from requirements to be at emergency shelters at certain times: “From 3:30 to 5, you have to do check-in and, if you don’t do check-in, you lose your bed. Every day. It’s bad. So, it limits how far a person can go.” Use of restraints or being involuntarily admitted to hospital were other ways that healthcare services impeded participants’ freedom of mobility. In contrast, effective pain management, surgical, and rehabilitative services were identified as helping some participants regain their capacity to walk despite chronic pain or following injuries or illness.

Experiences of homelessness and the services used during these periods were generally discussed as contributing to feeling unsafe. In particular, emergency shelters were identified by a number of participants as dangerous environments where people could be victimized (assaulted, harassed, or exploited): “This place [emergency shelter] is violent and there’s a lot of those issues, and that’s just other people making it miserable for other people.” Emergency shelter staff could help to mitigate safety issues by engaging in conflict resolution; however, several participants reported that staff in some shelters took passive roles that exacerbated problems:

> They [emergency shelter staff] would close themselves off in the office and, you know, read. That was how they did their shift. So, we’re all out there doing whatever and all kinds of crazy shit going on, and they just didn’t deal with it.

Support to exit homelessness was also reported to help with safety, though two participants in social housing noted that this was not guaranteed as apartment buildings could be unsafe as well. Other service users also affected perceptions of safety when accessing community and social services. Women's only programming was identified by some female participants as feeling safer. Several participants also talked about the development of friendships with other service users as a way of feeling safer during homelessness. However, these relationships were identified as also potentially having negative impacts in other ways. Said one housed participant of the impacts of her peer community when she was homeless, "It was good and bad. It made me feel safer but it also got me into some pretty heavy drugs." Services also promoted safety by posting and enforcing rules on zero tolerance for violence and harassment, communicating to service users that they were in a safe space, and providing psychotherapy for past trauma.

Family physicians and walk-in clinics were noted to help promote reproductive choice. Of note, housed participants discussed accessing more regular, preventative measures (e.g., combined oral contraceptives, intrauterine devices, pap tests), whereas homeless participants primarily talked about using reactive approaches (e.g., emergency contraceptive pills, sexually transmitted infection testing). A number of participants were uncertain or did not perceive services to have any impacts on reproductive choice.

**Control over one's environment.** With regard to the political component of this capability, few participants discussed how services impacted their freedom to participate in and speak about political choices that affect their lives. Of those that did, most took part in activities related to advocacy and service delivery (e.g., sitting on an organization's board of directors or tenant's committee within a housing program, sharing information and consulting with policymakers regarding harm reduction services planning, attending protests related to the opioid crisis). One homeless participant was involved in a group intended to protect and raise awareness for the rights of people experiencing homelessness.

As for the material rights component of the capability, there was unequivocal agreement among participants that services did not help them to be able to own property. Moreover, some participants also acknowledged that income support programs impeded their ability to save money by putting limits on recipients' overall material capital: "You're allowed to own a vehicle that's less than $5,000, you're allowed to have a credit card of $1,000, or cash in the bank of $5,000 and that's it. So, you can't own a home and be sick." Said one formerly homeless participant on the experience of being on disability income supports, "It allows me just to maintain life. I'm not living, I'm just like surviving. Just existing on this planet and that's all." Some participants discussed how disability income supports and services that allowed them to save on costs of living (e.g., food banks) helped them to afford material goods on a much smaller scale (e.g., cell phones, clothes). Said one formerly homeless participant, "I don't have too many bills, I don't have too many luxuries, but I have a cell phone so, you know, I'm able to keep that." Homeless participants also discussed that limited storage space at emergency shelters prevented them from carrying many possessions with them, as well as thefts being common.

**Practical reason.** Homelessness was identified by some participants as causing an inability to plan ahead and a loss of social roles. One formerly homeless woman contrasted her ability to plan ahead during and after homelessness, "I can sort of vaguely make a one-year plan and not get my hopes up, whereas when you're in survival mode and being homeless, if you have a one-minute plan, you're lucky." Another currently homeless participant described the changes in his life during the six months that he had been in the emergency shelter system, "I've been a parent, you know? I've had many relationships, I've been an employer, for fuck's sakes. Like, I say, now, it's like 100% changed. Like, it's completely not the same person."

With regard to how services promoted people's freedom to adopt meaningful social roles, participants primarily discussed programs providing volunteering opportunities or assistance to return to the workforce. For some, this included treatment to regain a level of functioning necessary to participate in activities. Said one formerly homeless participant of the role of medication in allowing her to be a peer support worker "It gives me an even keel. Like, I know every day now, I can get on with life. I can wake up in the morning, go get my methadone, and then I'm productive all day." However, even with treatment, not all viewed employment and volunteering to be feasible given their health limitations. Moreover, though income support programs offered training to return to work, the financial stability could make it difficult to go back to work: "Leaving the [disability income supports program] – the stability of [it] – to wake up every morning, take a shower, take the bus, go to work, it's not feasible." Learning new skills was another way that services affected social roles (e.g., parenting skills, assertiveness skills for relationships, and information and recommendations be a good neighbour).

**Affiliation.** Living alone or experiencing homelessness could be isolating experiences, either by choice or not. Some participants avoided others out of preference or as a way of protecting themselves; however, for others, it was a product of their living environments: "It's a lot of bachelor apartments, so people isolate and I'm one to blame for that, too." Community services were identified by participants as offering opportunities to socialize and develop friendships with other service users. Services were not viewed to have much impact on romantic relationships, though two participants had met their current partners at a service. Formal or informal peer support allowed participants to relate to others through giving and receiving mutual support: “It’s important to have one person that needs help with a certain thing, to help them and visa versa … gives me a sense that, for once, I belong.” For some experiencing homelessness, drop-in centres allowed for respectful interactions with other service users that were not feasible outside of a service environment. However, homophobia and transphobia were also noted to be prevalent within homeless service contexts: “There’s less inclusive areas for people who are trans, any sort of LGBT spectrum really can be heavily discriminated against.”

As for relationships with service providers, almost all participants described having a mix of positive and negative experiences. The negative interactions could lead to intense emotions related to stigmatization, worthlessness, or helplessness. Said one formerly homeless participant of past problems with a housing provider, “The mental way of making you feel is that you are worth nothing. You are two inches and they don’t care.” Others added that receipt of income supports or association with a mental health service provider as part of a housing program could lead to discrimination from landlords. In contrast, working relationships with service providers who are caring, nonjudgmental, and trustworthy could remind participants that they mattered: “It makes me feel good, man. At least you’re wanted with them.” Others described how connections with service providers compensated for a lack of relationships elsewhere in their lives: “They were there for me like better than my actual family was.” Participants reported finding less judgment and greater relatability with service providers who had lived experience: “Most people that don’t have an addiction don’t know what it’s like. I’ve learned we have a way of talking that we can click-click and understand each other and relate.” Harm reduction programs were mentioned by many participants who used substances as being services where they encountered nonjudgmental and caring peer providers.

Services enabled some participants to maintain relationships or reconnect with family. For example, libraries provided the technological resources to stay in touch with social networks, whereas religious and cultural services provided spiritual connections to family and traditions.

**Other species.** Emergency shelters and some landlords were identified as restricting participants' freedom to have pets. Said one housed participant, "When I was homeless, I had a dog. And, I didn't want to let go of my dog. And, a girl told me on the phone that they weren't allowed dogs [in the emergency shelter] … I had to get rid of my dog for absolutely nothing." As for pet policies in the rental housing market, one homeless participant pointed out that these were unlawful rules; however, people are not necessarily aware of this: "If you don't know the law then you're going to rent a place that says 'no pets' and you're actually gonna like listen to the landlord, not realizing that the landlord is wrong and that specific part in the lease is null and void." Housed participants also identified services that provided free pet food and supplies, and affordable vaccination and neutering as helping to the reduce financial burden of pet ownership. The freedom to have plants was less discussed but several homeless participants noted that emergency shelters restricted this aspect of the capability as well. A divergent view held by five participants was that services did not impact people's freedom to have pets or plants in their lives.

**Senses, imagination, and thought.** Use of religious and faith-based institutions were described as promoting spiritual freedom of expression. For Indigenous participants, this included services that offered traditional, cultural programming: "It brings me into a very good, spiritual place of happiness." Although some participants described faith as having an instrumental role in their lives, including their resiliency during homelessness, a number of them had past service experiences that were incompatible with their spiritual beliefs. Said one homeless participant who was Muslim of his past experience with a Christianity-based substance use treatment centre:

> You have to go to their chapel. You must or you get kicked out … but they don't have a right to do that and push their values and beliefs on other people, as I don't, as you don't, they don't, we don't have that right. We have a right to own religious beliefs.

Services also helped with creative expression by offering arts-related activities or providing resources that helps participants to engage in the arts (e.g., use of library computers to print poetry, borrowing books for artistic inspiration).

**Emotions.** Services that offered opportunities to talk with supportive service providers or other service users were perceived to promote emotional expression. For some participants who had limited support networks, services were the only option for connection, whereas, for others, services helped them to open up about their issues when they were unable to previously: "Before it was all frozen inside. I was just going, by myself, by the river with a beer, by myself and talk to myself, that was it. Not talk to somebody else. So, counselling helped me a lot." However, concerns about confidentiality, trust, and approachability were common barriers to opening up. Said one formerly homeless participant:

> I can only open up to certain people but then when you open to certain people, the staff, they write it down in a book and everybody knows and you don't want that. So, then I just don't open up anymore. So, it's stopped me from being able to talk.

Peers and other service users that had shared experiences could make it easier to relate and talk about issues, with counselling and self-help groups being one type of service where participants felt they were able to talk openly and provide mutual support: "I got to unload what's on my chest and hopefully make friends and be there for somebody if they needed to talk." Several homeless participants also discussed use of crisis telephone lines as an opportunity for emotional expression during off-hour periods of distress.

Although there were some opportunities to open up and connect to others for participants staying in the emergency shelter system, the negativity or perceived risks to personal safety within the environment led some participants to keep to themselves: “I don’t express my beliefs here, my emotions, my beliefs because here it’s just doomsday.” Some homeless participants also reported that they felt that they did not have the right to express their opinions, including complains or in response to perceived injustices, because of their housing status: “I don’t have a right. Why? Because I live here [emergency shelter] and I have to take what they give me.” Another barrier to speaking up was fear of repercussions: “I’m terrified to tell doctors that I use opiates because I know for a fact that more than half of them are gonna kibosh any type of pain management treatment that I could possibly get at all. And, that’s not fair.” In contrast, several participants noted that they will speak their minds regardless of the situation: “If I got something to say, I’ll tell you. Even tell staff, right to their face.”

**Play.** Participants described their freedom to play and enjoy recreational activities as principally being restricted by their lack of funds and low incomes: “What is preventing me from my hobbies and my activities of interest? Well, I can only think of one thing. It’s not drug addiction or mental health issues, it’s the fact that I can’t afford any of them.” Services helped to partially restore this capability by offering entertainment or organizing games and art activities. Libraries were identified as an important contributor to this capability, with participants reporting that they used the service to browse the internet and take out books, video games, and movies. Said one homeless participant, “I go to the library to use the computer, internet, go on Facebook, or sit down and read newspapers – sports, highlights, news.” For participants who visited community centres, drop-in programs, and cultural centres for offered exercise classes, games, arts and crafts, and traditional Indigenous activities and events (e.g., smudging, drumming, talks by elders), most described being unable to engage in these activities without services. However, some participants felt the recreational options offered by services were limited: “You could have a group that repairs bikes there at the community centre and, you know, gives bikes to people in the community and have like bike tours … there’s not any place like that.”

## Discussion

The findings suggest that currently and formerly homeless people with mental health problems perceive many unfreedoms in their lives, including nutritious food scarcities, limited material rights, social role deprivations, isolation and exclusion, and insufficient income to participate in recreational activities. Lack of safety was also prominent during episodes of homelessness. The services used by currently and formerly homeless people with mental health problems were described as having a range of effects on almost all capabilities for better or worse. However, the perceived impacts on some capabilities are greater than others. For example, participants identified a range of health, social, and community programs that have multifaceted impacts on bodily health, whereas services were not perceived to help participants overcome the financial barriers associated with home ownership and some recreational activities. Moreover, some participants described services as having a role in the promotion of capabilities that was secondary to their own personal responsibility and actions. From this perspective, services may help to lessen unfreedoms only if people make a choice to use services. In the context of homelessness, substance use, and mental illness, barriers, such as stigma, concerns about personal safety, and lack of insight into health problems (Corrigan, Druss, & Perlick, 2014;

O'Brien, Fahmy, & Singh, 2009; Thompson, McManus, Lantry, Windsor, & Flynn, 2006), that prevent people from seeking or accessing services may further limit capabilities.

Many services used by participants were to meet basic needs, such as shelter, food, income, and healthcare. Because of this, services provided the necessities for people to *survive* life. However, few services enabled participants to *live* life, with some even impeding this freedom. For example, income support programs limited material capital and income earnings, which prevented home ownership and disincentivized returning to the workforce. The perceived ineffectiveness of services in helping people with mental illness and histories of homelessness to move forward in life is, at least partially, the result of health and social services being unable to overcome structural issues, such as affordable housing shortages (Sylvestre et al., 2018) – an observation also made by some participants. As a result, some of the unfreedoms associated with poverty and social exclusion experienced by participants are not or can only minimally be addressed by existing services that are ineffectual for changing the broader complex and dynamic systems in which these problems are entrenched and perpetuated.

The interconnectedness of capabilities meant that participants often described services as affecting more than one capability. In some cases, this was multiple positive impacts, such as receiving an effective health intervention from a supportive and nonjudgmental service provider – capabilities of bodily health and affiliation, respectively. However, there were numerous examples of service use that furthered one capability while diminishing another. For example, some participants receiving opioid replacement therapy (i.e., methadone or buprenorphine) described the medication as enabling them to function on a daily basis; however, they were required to visit the clinic every day to receive the treatment, limiting their freedom of mobility. Similarly, emergency shelters that required people to be present at a designated time to receive a bed provided temporary accommodation and a warm place to stay but limited people's ability to travel around the city to look at available apartments. Moreover, emergency shelters could be perceived as dangerous, offer opportunities for connection to peers, and not allow pets, highlighting the mixed impacts that this type of service has on capabilities. Income support programs were another service identified as positively and negatively impacting capabilities. Income supports could provide a sense of stability that lessened worry and stress, but programs also had restrictive policies around income earnings. Given the complexity and variation in the effects of service use on capabilities, as well as the approach's implications for quality of life (Ware, Hopper, Tugenberg, Dickey, & Fisher, 2008), future research on the outcomes of mental health and social care interventions should consider examining capabilities.

The findings were largely similar between housed and homeless participants. Both groups discussed how capabilities, such as access to nutritious food, material rights, and play, were restricted due to low incomes. However, homelessness could yield further unfreedoms, such as a lack of safety, loss of social roles, and limited ability to plan ahead in life. Overall, many services had the same functions and impacts on capabilities regardless of housing status. One exception was the freedom to have pets and plants, which was restricted by emergency shelter rules for participants experiencing homelessness. Although some housing buildings also have "no pets" policies, these are more pervasive in emergency shelters. Though the functions and impacts of services were largely the same, the described differences in freedoms may affect people's patterns of use. For example, as housed participants described being able to plan ahead, this explains why they discussed more regular use of preventative measures of reproductive health, whereas homeless participants accessed reactive approaches.

Use of the capabilities approach as a framework for analysis partially overlaps with conceptualizations of recovery that are widely applied in community mental health (Ellison, Belanger, Niles, Evans, & Bauer, 2018). However, the capabilities approach also captures aspects of human development omitted or underrepresented by recovery frameworks. As Davidson et al. (2009) has previously argued, the recovery vision lacks inclusion of a rights perspective that is necessary to achieve transformative mental health service systems, whereas human rights are the foundation of Nussbaum's (2000) central capabilities framework. In the context of this study's findings, the capabilities approach enables a more comprehensive look at the unfreedoms of people with mental illness who have histories of homelessness than can be gleaned from a recovery framework. For example, inclusion of material rights, which extends beyond having adequate housing to consider opportunities for home ownership, showed that almost all participants did not see this is as a reality nor was a domain where services could help. Political control is another dimension that is explicitly missing from recovery conceptualizations, though activities in this area are occasionally encompassed by meaningful activity involvement. Though few participants discussed their freedom to be involved in the political choices that affect their lives, for those who did, it was apparent that this was an important right to them that is deserving of acknowledgement and focus. Lastly, the separation of other species and affiliation, which is unique to the capabilities approach, is valuable for people with mental illness and histories of homelessness. Given the important role of pets in the health and well-being of this population (Kerman, Gran-Ruaz, & Lem, 2019; Zimolag & Krupa, 2009), including many people in this study who had pets or had given up pets, pet ownership is a key human right that must be recognized. Overall, as Hopper (2007) argued, a capabilities-informed recovery framework for mental health services would prioritize the health and citizenship needs of people with serious mental illness to thrive in life. However, the findings from this study highlight the many unfreedoms experienced by people with mental illness and histories of homelessness, and stark reality of the amount of work that needs to be made to achieve this transformational goal.

## Limitations and Future Research

There are several limitations to this research. First, the nature of capabilities – freedoms – that are differentiated from functionings – achieved outcomes of capabilities – presented challenges during data collection. It was not always clear whether participants were interpreting the interview questions in the context of capabilities or their current functionings (e.g., commenting on how services impact current health versus freedom to have good health). Having data on participants' functionings would have helped to inform data collection and contextualize analysis. Future studies of capabilities among people with mental illness and histories of homelessness should consider measuring functionings with validated tools (e.g., OxCAP-MH; Simon et al., 2013), as well as qualitatively exploring people's perceptions of their freedoms. Second, the findings on the political component of control over one's environment should be interpreted with caution as data were scarce and may not comprehensively depict its relationship with services for participants. Third, as the majority of interviews lasted longer than an hour, participants in the study's convenience sample may have had a level of functioning and stability that was above average for the population. Fourth, as participants were recruited via service agencies, people with mental health problems and histories of homelessness who do not use services were omitted from this study. As such individuals are likely to have a different perspective on the impacts of services on capabilities, inclusion of non-service users should be a priority for future research.

# Conclusion

Using a capabilities approach framework, this study found that housed and homeless people with mental illness perceive many unfreedoms in their lives. Despite a number of shared unfreedoms between the two groups associated with poverty or mental illness, such as nutritious food scarcities, limited material rights, and insufficient income to participate in recreational activities, homelessness could yield further unfreedoms, including a lack of safety, loss of social roles, and limited ability to plan ahead in life. The health, social, and community services used by participants were perceived to have mixed and limited effects on their capabilities (e.g., helping with home ownership, overcoming affordable housing shortages). In general, many services helped people to *survive* life but not necessarily *live* life. Moreover, given the interconnectedness of capabilities, service use could enhance one while negatively impacting another. Many services had the same functions and impacts on capabilities regardless of housing status. However, the differences in unfreedoms between the two groups appeared to affect the types of services used, with housed participants being able to plan ahead and using preventive health services, whereas homeless participants used reactive measures to attend to their health. Overall, the capabilities approach offers a comprehensive, human rights-based framework that is relevant to people with mental illness and histories of homelessness but services used by this population are inadequate for reducing their many unfreedoms.

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Table 14. Demographic and health characteristics of sample ($N = 52$).

| | Homeless ($n = 26$) | | Housed ($n = 26$) | |
|---|---|---|---|---|
| Characteristic | *n* / *M* | % / *SD* | *n* / *M* | % / *SD* |
| Gender | | | | |
| Male | 14 | 53.9 | 9 | 34.6 |
| Female | 12 | 46.2 | 16 | 61.5 |
| Transgender female | 0 | 0 | 1 | 3.9 |
| Age (years) | 41.85 | 8.80 | 47.62 | 10.73 |
| Mental health | | | | |
| Unipolar depressive disorder/problem | 12 | 46.2 | 11 | 42.3 |
| Post-traumatic stress disorder | 11 | 42.3 | 8 | 30.8 |
| Bipolar disorder | 5 | 19.2 | 10 | 38.5 |
| Anxiety disorder/problem | 8 | 30.8 | 7 | 26.9 |
| Attention-deficit and hyperactivity disorder | 7 | 26.9 | 5 | 19.2 |
| Schizophrenia | 3 | 11.5 | 4 | 15.4 |
| Personality disorder | 4 | 15.4 | 2 | 7.7 |
| Problematic substance use | 17 | 65.4 | 15 | 57.7 |
| Number of chronic medical conditions | 1.85 | 2.31 | 2.38 | 3.45 |

Table 15. Capability descriptions and highlights of study findings.

| Central Capability | Description | Impacts of Services on Capabilities |
|---|---|---|
| Life | Having the opportunity to live a normal human life and not die prematurely | Prevent death by treating serious health conditions and suicidal ideation, reducing tobacco use, and preventing or reversing overdoses<br>Help to exit homelessness<br>Prevent starvation |
| Bodily health | Being able to have good health, as well as having access to adequate nutrition and shelter | Prevent health problems from developing or treat existing conditions<br>Provide safe supplies for substance use, birth control<br>Offer indoor spaces during extreme weather<br>Help to exit homelessness and maintain housing<br>Are insufficient for overcoming structural issues (e.g., lack of affordable housing)<br>Do not provide access or sufficient funds to purchase nutritional food |
| Bodily integrity | Being able to maintain bodily integration, and having freedom of mobility, security against assault, and opportunities for sexual satisfaction and reproductive choice | Have varying effects on freedom of mobility (e.g., public transportation enables travel within the city; service requirements, use of restraints, and involuntary hospital admissions restrict movement)<br>Can be dangerous environments where there is risk of victimization<br>Help to exit homelessness but housing not guaranteed to be safe<br>Promote reproductive choice |
| Control over one's environment | [A] Political: Being able to effectively participate in the political choices that affect one's life and having freedom of association; [B] material: having the right and opportunity to hold property | Offer opportunities to be involve in advocacy and service delivery<br>Do not help and may even restrict freedom to own property; assist with affording material goods on a much smaller scale (e.g., owning a cell phone) |
| Practical reason | Having the ability to critically reflect on and plan one's life, and to engage in meaningful social roles | Provide volunteering opportunities<br>Offer assistance with returning to the workforce but financial stability of income support can make it difficult to go back to work<br>Teach parenting and assertiveness skills, and offer recommendations relevant to interpersonal social roles |
| Affiliation | [A] Self-respect and non-humiliation: having the social bases of self-respect and non-humiliation; [B] living with and toward others: being able to live in relationship to others | Offer opportunities to socialize and develop friendships but rarely romantic relationships; homophobia and transphobia also prevalent in some settings<br>Involve interactions with service providers that can be either positive (trustworthy, nonjudgmental, caring) or negative (discriminatory, stigmatizing)<br>Enable maintenance of relationships or reconnection with family |
| Other species | Having the freedom to live with plants and animals | Have 'no pets' policies<br>Reduce financial burden of pet ownership (e.g., free pet food, affordable veterinary services) |
| Senses, imagination, and thought | Having the ability to feel, imagine, and think, and the freedom of self-expression and religious exercise | Offer spaces to exercise spiritual, cultural, and creative freedom of expression; if a service requirement, may be incompatible with personal beliefs |
| Emotions | Having the ability for emotional experience and expression | Offer opportunities for emotional expression with service providers, peers, and other service users<br>May not speak up due to lack of safety or fear of repercussions |
| Play | Having the ability to laugh, play, and enjoy recreational activities | Organize games, art activities, and entertainment, though recreational options viewed by some to be limited |

*Note*. Descriptions of capabilities drawn from Nussbaum (2000) and Shinn (2015).

# General Discussion

## Overview and Discussion of Research Findings

This dissertation explored two research questions: [1] How do patterns of service use differ during transitions from homelessness to housing compared to those from housing to homelessness among people with mental illness? and [2] What is role of services in enhancing the lives of housed and homeless people with mental illness? The first research question was the focus of Study 1. Findings showed that, as homeless people with mental illness transition into stable housing, their service use patterns change. Most notably, psychiatric hospitalizations, time in prison, and emergency shelter stays decreased, whereas use of food banks increased. In contrast, individuals who experienced continued or recurrent housing instability, including homelessness, had few to no changes in service use patterns. Housing First minimally affected service use patterns over the study period, suggesting that housing stability is the key force behind the changes in service use as people transition out of homelessness. However, Housing First is highly effective in stably housing people with mental illness who are experiencing chronic homelessness (Aubry et al., 2015, 2016; Woodhall-Melnik & Dunn, 2015). As such, the findings of this study suggest that the intervention likely reduces burden on health and social systems as a result of its effectiveness in helping people to exit homelessness and stay housed.

The findings have implications for preventing recurrent homelessness among people with mental illness in Housing First. In particular, time spent in prison after entry into Housing First is associated with increased risk of recurrent housing instability. This finding adds to previous research by Volk et al. (2016), which found that the percentage of time in prison prior to Housing First entry was negatively associated with housing stability after one year. Further, in a longitudinal study of people experiencing housing instability, To et al. (2016) found that recent incarceration decreased the likelihood of housing stability after two years. As such, tenants with recent or ongoing involvement in the legal system may require additional support from Housing First support teams. In addition, because Housing First is associated with reduced recidivism (Somers, Rezansoff, Moniruzzaman, Palepu, & Patterson, 2013), the intervention may be helpful for people leaving prison who are at-risk of homelessness. Psychiatric hospitalizations may be a second service use risk factor for recurrent homelessness, with a lack of service use changes signaling possible housing instability of Housing First tenants. Because of this, deviations from the typical psychiatric hospital and prison service use patterns associated with Housing First should be viewed as potentially problematic. In contrast, as emergency shelter stays and drop-in centre visits decreased for all groups, including people who experienced continued or recurrent housing instability, use of these services may be poor indicators of risk for recurrent homelessness.

**Service use and recovery.** Studies 2 and 3 in this dissertation examined the second research question on the perceived impacts of service use in the lives of people with mental illness who have histories of homelessness, with a focus on recovery. The findings of Study 2 showed that health (e.g., number of chronic medical conditions, severity and frequency of mental health symptoms, substance use problems) and community (e.g., having at least one close person in social networks, community integration) factors were the best predictors of recovery during episodes of homelessness. Home and support factors, including several types of service use (e.g., case management, housing support, drop-in centres, therapy and counselling), minimally affected recovery. At the two-year time point when housing stability rates were bimodally distributed within the sample (i.e., many participants had spent either no days or every day in stable housing in the past three months), the baseline factors minimally predicted changes in recovery. The findings suggest that the services that homeless people with mental illness use during homelessness have little effect on their mental health recovery during or after homelessness.

The findings from Part 1 of Study 3 revealed a somewhat different narrative. Using a qualitative design, the study explored how people with mental health problems and histories of homelessness view services as impacting their recovery. Recovery was discussed broadly by participants in the study, as they had experienced many life adversities beyond their mental health and substance use. Within this context, health, social, and community services were described as helpful for finding ways to cope and get by, feeling less alone, and giving back through involvement in volunteering and advocacy work. Further, consistent with past research (e.g., Wong et al., 2019), respectful service providers that saw people who were accessing services for who they were could have a positive impact on recovery. However, dehumanizing experiences in which service users were seen as their health conditions or other lived experiences were commonly reported. Restrictions associated with service use, such as limited treatment and care options, and service rules and requirements, also impeded recovery. Thus, it must be recognized that some service experiences can be perceived as detrimental to the recovery of people with mental illness and histories of homelessness.

The ways in which services were perceived to positively affect recovery in Part 1 of Study 3 are particularly important as they underscore that all health, social, and community services can play a role in recovery. Many of the services accessed by participants, like their broader systems, are designed to respond to crises and manage problems (e.g., emergency shelters, drop-in programs, soup kitchens, food banks, acute and emergency care, supervised consumption sites). Within these settings, the delivered services are unlikely to comprehensively resolve the many life adversities experienced by people with mental health problems and histories of homelessness. However, all service providers can play a role in supporting people with coping and feeling less alone, even if it is by simply getting to know service users, taking time to listen, and providing words of encouragement. Given that recovery has been minimally integrated into homeless sector services and their readiness for change is fairly low (Gillis, Dickerson, & Hanson, 2010; Manning & Greenwood, 2019), such actions can be initial steps toward the provision of recovery-oriented care.

As for the differing findings between Studies 2 and 3 on the relationship between service use and recovery, it may not be *what* services are used but *how* they help. Accordingly, the themes found in Part 1 of Study 3 were not specific to particular services but rather discussed by participants across different types of service experiences. For example, emergency shelters, drop-in centres, soup kitchens, and churches were each described as services where new relationships could be formed. As such, the roles of services – many of which have multiple functions for people with mental illness and histories of homelessness – are key to understanding their impacts on recovery. Further, if services yield supportive relationships and a sense of belonging – two factors that were positively correlated with recovery in Study 2 – then use of those services may indirectly affect recovery. In this way, service use is more than a transactional experience but one that is multifaceted, which yields an array of potential impacts on recovery for better and worse. Given the intricacies of service use and echoing previous calls (e.g., Barbic et al., 2018; Kerman, Sylvestre, & Polillo, 2016), there is a critical need for greater integration of recovery tools in the evaluation of services for people with mental illness who have histories of homelessness. However, such tools must also conceptualize recovery broadly (i.e., beyond only mental illness) when applied to this population as they are often recovering from multiple life adversities.

**Housing First and recovery.** The Housing First intervention was not found to significantly affect changes in recovery ratings at the two-year time point in Study 2. The finding suggests that Housing First, on its own, may be insufficient for furthering recovery. However, tenants may still be going through a period of adjustment after two years that precedes substantive progress on recovery-oriented goals. For example, a qualitative study of recovery trajectories in Housing First over a 24-month period found that tenants valued the opportunity to first settle down before thinking ahead and developing new goals in life (Rhenter et al., 2018). Alternatively, the intervention may be unable to help tenants to overcome structural barriers to recovery, such as social exclusion and disenfranchisement. As many Housing First tenants continue to live on meager disability income support programs (Henwood, Derejko, Couture, & Padgett, 2015; Poremski et al., 2016), low incomes may restrict people from living the lives they want. Thus, Housing First may help some people out of homelessness but, without action to address related complex social problems, such as poverty, the intervention may not resolve other injustices experienced by people with mental illness that can worsen health and thwart recovery (Katz, Zerger, & Hwang, 2017).

**Service use and capabilities.** Part 2 of Study 3 examined the relationship between service use and Nussbaum's (2011) central capabilities. The analysis provided further evidence that the support services used by people with mental illness and histories of homelessness are perceived to have varying yet limited impacts in their lives. The analyses showed that participants described the health, social, and community services they use as having mixed effects on their capabilities, some positive (e.g., meeting new friends at services, being able to have spiritual freedom of expression when visiting religious and faith-based institutions), some negative (e.g., feeling unsafe in homeless service environments), and some minimal (e.g., helping with home ownership, finding housing in rental markets with low vacancy rates). Moreover, the findings highlighted the intricacies of service experiences, as use of a service could simultaneously advance one capability while restricting another. For example, accessing an emergency shelter that did not allow pets could benefit the capability of bodily health while yielding an unfreedom for the capability of other species. In such an instance, if obtaining shelter and keeping a pet are both valued priorities then the decision to use or not use the emergency shelter yields two suboptimal outcomes. A similar predicament was described by participants who were receiving opioid substitution therapy and required to attend a clinic on a regular basis (sometimes daily) to receive their medication. Although the treatment promoted the capability of bodily health by allowing people to function, the requirements constricted their movement, thereby infringing on their freedom of bodily integrity. As the capabilities of people experiencing homelessness are already undermined by competing needs (e.g., choosing between accessing employment supports or using a meal program; Gelberg, Andersen, & Leake, 2000; Thompson, McManus, Lantry, Windsor, & Flynn, 2006), service rules and requirements can further exacerbate unfreedoms.

The perceived push and pull effects of support services on capabilities have implications for Housing First – the model of housing in which approximately one-third of the housed participants in Study 3 were living. The tenets of Housing First may be undermined by other services' approaches to care that are used by tenants. For example, treatment control and choice may be implementable within a Housing First support team; however, if healthcare being accessed within the community has requirements for treatment, choice may be compromised. Because Housing First is a complex community intervention that spans broader sociopolitical and policy contexts (Nelson, Macnaughton, & Goering, 2015), scaling up the intervention requires more than systems change within the housing and homelessness service sector. Widespread adoption of a framework with consistent values and principles to Housing First, such as recovery or capabilities, within mental health and addictions systems would facilitate continued implementation of the intervention and provide tenants greater freedoms in service use.

Parts 1 and 2 of Study 3 used the same qualitative data to examine the perceived impacts of services on health and well-being using recovery and capabilities frameworks. The findings revealed similarities and differences between the analyses. With regard to the former, services were found to have positive and negative impacts on recovery and capabilities. For example, supportive and respectful relationships with service providers could yield a range of benefits, including reinforcement of personhood, feelings of safety, and having one more person in a support network. However, negative encounters with service providers that involved stigmatization, disrespect, power imbalances, and feelings of mistrust had detrimental effects on health and well-being. Overall, the findings in the recovery analysis were largely encompassed by the analyses using the capabilities approach given the comprehensiveness of the theoretical framework. As such, the findings related to involvement in meaningful activities and affiliation were near identical in the recovery and capabilities analyses.

Service restrictiveness and the limits of service helpfulness were more pronounced in the capabilities approach analysis. This may be due to the nature of the theoretical frameworks as some capabilities are less subjective and more tangibly measured than the components of recovery, making for clearer judgments of the extent to which services help. For example, capabilities, such as other species and the material rights aspect of control over one’s environment, are freedoms that people either have or do not have, which can be evaluated in a standardized way: Are people allowed and do they have sufficient funds to purchase property or own a pet in the place where they are living? Limits on income earnings and savings for income support program eligibility, and no pet policies in emergency shelters and rental housing are examples of how services restrict freedoms associated with the aforementioned capabilities. In contrast, indicators of recovery, such as having hope, can be more experiential, leading to more subjective determinations on the impacts of services. The capabilities approach also includes freedoms that require subjective evaluations, such as feeling safe from violence (bodily integrity) and having “adequate” nutrition and housing (bodily health). Nevertheless, on its own, the capabilities approach offers a framework that would enable comprehensive assessment of the impacts of interventions in the lives of people with mental illness and histories of homelessness. However, given the partial overlap between the two frameworks and in the findings of the two analyses, a capabilities-informed recovery framework may be a feasible option for developing and evaluating community mental health services.

Overall, the findings from Studies 2 and 3 suggest that health, social, and community services are limited in their impacts on recovery and capabilities. Many of the services used by people with mental illness and histories of homelessness are intended to meet basic needs, such as shelter, food, and healthcare. Because of this, services primarily help this marginalized population to get by (i.e., survive life) but not get ahead (i.e., live life). One exception to this is when services positively affect the social relationships and ties of service users. This can occur when service providers develop caring and supportive relationships with service users, services offer an opportunity to meet new people and develop friendships, or services help people to connect or reconnect family and friends. Nevertheless, the services that comprise the community-based support system do not help people to exit poverty, which limits their freedom to live the lives they want in the community.

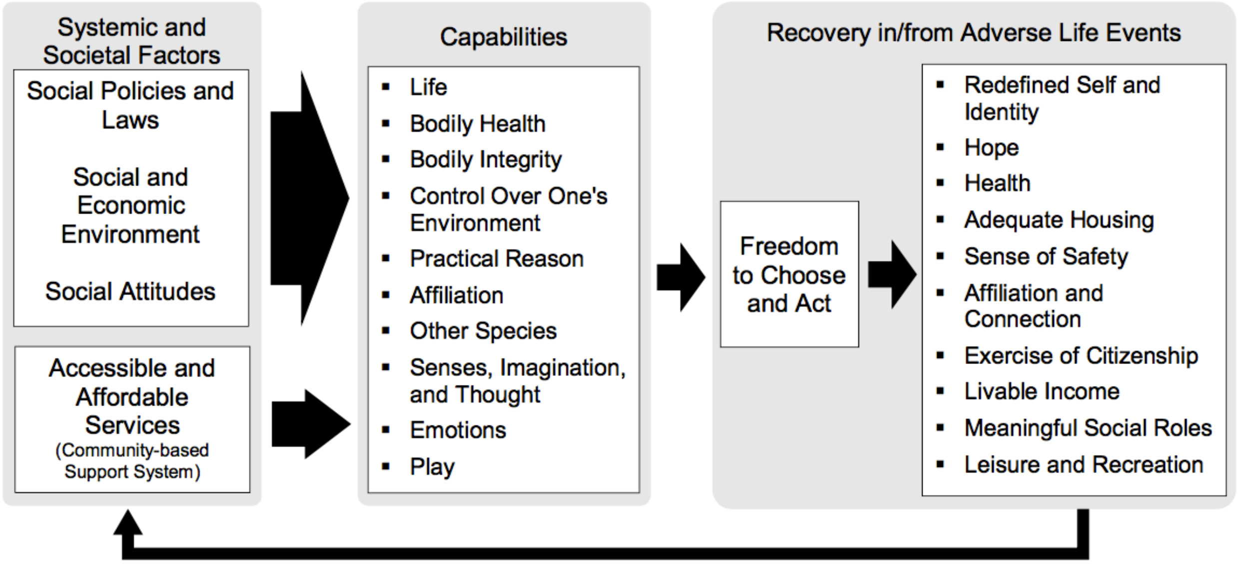
**Service use and housing stability.** The role of services in the lives of people with mental illness did not considerably change after people exited homelessness. As previously discussed, the hindering effects of poverty may explain why this is the case. However, it is also important to consider the meaning and role of housing stability in the lives of people who have exited homelessness. In Studies 1 and 2, housing stability was measured as the percentage of nights spent in certain types of residences over a three-month period. This operationalization of housing stability may overlook other factors that affect health and well-being, such as residential moves. For example, Housing First tenants are more likely to move residences due to housing loss rather than move to new housing that better fits their needs, which may be detrimental to the recovery process (Byrne, Henwood, & Scriber, 2018). Further, other dimensions that may contribute to housing stability were not reflected in the analyses of Studies 1 and 2 (e.g., financial security and subjective assessments of housing quality, meaningfulness, and satisfaction; Frederick, Chwalek, Hughes, Karabanow, & Kidd, 2014; Sylvestre et al., 2018).

Study 3 examined differences in the relationships between service use, recovery, and capabilities between people currently and formerly experiencing homelessness. However, housing stability was not assessed. Considering the scarcity of affordable housing for people with low income, the group classifications of housed or homeless may not be as distinct as they might appear. For example, a number of housed participants were looking or waiting to move to new housing. Further, all housed participants in Study 3 were receiving income supports that place limits on income earnings and savings, which can lead to housing precariousness (Trainor et al., 2013). As such, the housed group in Study 3 may be a diverse one in terms of housing stability, which obscures more nuanced differences in the role of services in the lives of people with mental illness after exiting homelessness.

## Development of a Capabilities-informed Recovery Framework

The difference between capabilities (freedoms to achieve a level of functioning or well-being) and functionings (the actualized level of one or more capabilities that is achieved) has important implications for an integrated, rights-based capabilities-recovery framework. Although recovery is a process, its components are predominantly experiential outcomes (e.g., having hope, feeling empowered, assuming control over life choices, giving and receiving support, managing symptoms). Accordingly, recovery components align more with functionings than capabilities. Similar to the relationship between capabilities and functionings, capabilities can be viewed as preconditions to the achievement of recovery outcomes (see Figure 3). An array of structural and systemic factors, including accessible and affordable services, social policies and laws (e.g., healthcare, housing, income and employment, anti-discrimination), social and economic environment (e.g., housing stock), and social attitudes (e.g., stigma) shape the extent to which people with mental illness and histories of homelessness have or do not have capabilities. In turn, capabilities then create the freedom to make choices and act in ways that furthers recovery. People who have achieved certain functionings and recovery outcomes may then influence systemic and societal power structures. For example, some participants in Study 3 described being involved in advocacy and peer support work as ways to change the service landscapes.

Figure 3. Capabilities-informed recovery framework.



Consistent with past research (Padgett, Smith, Henwood, & Tiderington, 2012; Padgett, Tiderington, Smith, Derejko, & Henwood, 2016; Patterson, Rezansoff, Currie, & Somers, 2013), participants in Study 3 described their recovery not only in the context of mental illness, substance use, and homelessness but also trauma and victimization, chronic medical conditions, incarceration, sex work, social isolation and loneliness, and food insecurity. As all of these adversities are encompassed by the capabilities approach (i.e., life, bodily health, bodily integrity, affiliation), recovery must also be inclusive of the many adverse life experiences that may be experienced by people with mental illness and histories of homelessness. Accordingly, the concept of "complex recovery," which refers to the cumulative adversities and disadvantage experienced in life (Padgett et al., 2016), offers a necessary, broader definition for this population. Further, the differentiation between recovery *from* mental illness (i.e., the amelioration of symptoms and return to pre-illness level of functioning) versus recovery *in* mental illness (i.e., overcoming the consequences and effects associated with mental illness and attaining control over one's life; Davidson & Roe, 2007) also has implications for complex recovery. Recovery *in* is applicable to adversities that are chronic, ongoing, or have lasting impacts in people's lives. However, recovery *from* may be applicable to some adversities if they are temporally finite (e.g., social isolation, incarceration, food insecurity). Accordingly, the capabilities-informed recovery framework conceptualizes recovery flexibly as recovery *in* or *from* adverse life events.

The role and impacts of services in the capabilities-informed recovery framework must be interpreted in the context of the findings from Studies 2 and 3. Findings from Study 3 showed that health, social, and community services were not perceived to fully restore the unfreedoms experienced by people with mental illness and histories of homelessness. A similar pattern of findings emerged with regard to recovery, as services had varying but not transformative impacts on recovery. As such, the impacts of existing services in promoting capabilities may be secondary to and hindered by societal forces, such as social attitudes, environments, policies, and laws (the smaller arrow line for accessible and affordable services in Figure 3 denotes the lesser impact on capabilities than other societal factors).

Using Housing First as an example, the intervention is contingent on the availability of affordable housing stock, existence of rent supplements, and non-discriminatory attitudes of landlords in a community. When the housing and support are available, the shelter component of the bodily health capability becomes less restricted for people experiencing homelessness. Those individuals then have the freedom to choose whether or not they want to enter the Housing First program. The recovery outcomes of such a decision can then be assessed. Housing First tenants that become involved in meaningful activities, such as advocacy, may then have the potential to influence policy and service systems. It is important to note that this example highlights only the effects of Housing First on two capabilities (bodily health and practical reason) and that the intervention is likely to have less impact on other capabilities, such as ones that were described by participants in Study 3 as being restricted by lack of income (e.g., control over one's environment, other species, and play).

### Implications for Transformative Change in Service Systems

Transformative change refers to fundamental alterations in the values and operations of a system, which is in contrast to ameliorative change wherein changes are made within a system without questioning its values and operations (Nelson, Kloos, & Ornelas, 2014a). There are several examples of reform movements over the past half-century in Canada that have sought or produced transformative change in mental health and addictions service systems, such as the deinstitutionalization, psychiatric consumer-survivor, recovery, and harm reduction movements.[8] The findings in this dissertation touched on some of the individual outcomes of these movements (e.g., participants in Study 3 described their involvement in advocacy and paid peer support work, as well as the value of using harm reduction services) but also have implications for transformative change in community mental health and social systems. Informed by the change

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[8] Nelson et al. (2014a) argued that deinstitutionalization was an example of ameliorative change as community-based treatment and care retained the characteristics of the institutional approach. However, as deinstitutionalization also involved the de facto transition away from an 'out of sight and out of mind' approach (Lamb, 1984; i.e., changed values), it is presented here as an example of transformative change despite its consequences.

strategies identified by Nelson, Kloos, and Ornelas (2014b), three considerations are discussed: collaboration, experimental innovation, and recognition of the limits of service helpfulness. Of note, given the barriers and resistance that can arise when fundamentally altering systems, ameliorative change can be a stepping stone to later transformation (Nelson et al., 2014a) and should be considered in the context of the discussed implications.

**Collaboration.** Transformative change in community mental health and social systems requires cross-sector collaboration. As participants in Study 3 described a range of health, social, and community services as being beneficial for furthering their recovery and capabilities, change within a single service system will only perpetuate fragmentation and siloing. Without collaboration across sectors, progress to improve service delivery in one system will be limited by the lack of change within others. Accordingly, health and poverty need to be concurrent goals for all systems serving people with mental illness and histories of homelessness. In this way, mental health service providers must be poverty reduction and social justice advocates just as social service providers must be champions of positive mental health. Such changes to how mental health service providers operate will not be without barriers and resistance, such as the complexities of working with multiple stakeholders and interdisciplinary teams, as well as the entrenched culture of custodial care of people with mental illness, especially within hospitals (Kidd, McKenzie, & Virdee, 2014). Mental health strategies can support the transition to a social justice-based health system by identifying relevant progress indicators, promising practices, and practical actions to be taken by individuals in leadership and direct service roles related to this transformation. Governments can also incentivize transformative change by establishing funding requirements for services that are conditional on achievement of capabilities-informed recovery outcomes.

A second necessary action for transformative change is expanding the meaningful involvement of people with lived experience of mental illness, substance use, homelessness, and other life adversities within mental health and social systems. This could include scaling up peer support and facilitating people with lived experience to become involved in grassroots initiatives, such as harm reduction. Such action would be congruent with the findings of Study 3 in which participants perceived services as offering volunteering and work opportunities, including peer support, which was helpful to their recovery. In addition, because participants described wanting to help other people who experienced similar life adversities as them, expanding opportunities for people with mental illness and histories of homelessness to return to school to pursue jobs in helping professions is needed.

**Experimental innovation.** Transformative change requires new ways of thinking about and addressing social problems. Accordingly, experimental innovation is needed for transformative change. Findings from Study 3 highlighted several key domains where new ideas are urgently needed. Most notably, disability income support programs helped people to afford housing, though some still encountered challenges related to affordability and costs of living. In this way, disability income supports may lift people out of one adverse situation (homelessness) only to drop them in another (poverty). Paid employment was perceived by some as the only option for achieving greater income stability; however, participants described personal and systemic barriers to returning to the workforce. The findings are further evidence that the province's disability income support program produces stagnation in recovery, restricts choice, and threatens the dignity of people with mental illness. Because of this, transformative change to income support systems is needed.

The basic income guarantee is a universal cash benefit that is unconditionally provided to all citizens. It has been widely discussed as a strategy to reduce poverty and a potential replacement to existing disability income support programs. In Canada, the basic income guarantee was first tested in Manitoba in the 1970s and then more recently in Ontario; however, both pilot projects were terminated prior to completion. Studies of older adults in Canada before and after they received the guaranteed income supplement of Old Age Security (i.e., income support program for Canadians aged 65 years and older), which is similar to a basic income guarantee, found that participants had better self-reported functional and mental health, and less food insecurity after receiving the supplement (McIntyre, Dutton, Kwok, & Emery, 2016; McIntyre, Kwok, Emery, & Dutton, 2016). Given the benefits of the guaranteed income supplement for older adults in Canada, the basic income guarantee requires further exploration as a social policy innovation to produce transformative change in the lives of people with mental illness and histories of homelessness.

A second consideration for innovation is integrating other interventions into Housing First. Like past research of Housing First (e.g., Henwood et al., 2015; Poremski et al., 2016), some housed participants in Study 3 continued to experience difficulties with returning to work or developing social relationships after exiting homelessness. Already comprised of multiple interventions (i.e., rent supplement plus assertive community treatment or intensive case management), Housing First could include additional adjunct supports to further assist tenants with their recovery goals. For example, supported employment for Housing First tenants was recently examined, with findings showing that the added intervention was modestly useful (Poremski, Rabouin, & Latimer, 2017). Supported education has also been proposed as a transformative change intervention (Unger, 2014), which could address some of the barriers related to returning to work for Housing First tenants, but has yet to be tested. Similarly, supported socialization (e.g., Bond, Drake, & Becker, 2008) may be helpful for reducing social isolation in Housing First. Further, given that many participants in Study 3 described a desire to give back to the organizations and causes that had helped them, expanding opportunities for people with lived experience of mental illness and homelessness to become involved in service delivery of Housing First is needed. Developing peer-run Housing First would be another way to enhance the inclusion and empowerment of people with lived experience within community mental health and housing systems.

According to participants in Study 3, food services, such as soup kitchens and food banks, did not sufficiently provide access to nutritional food. As these programs are the primary offerings for reducing food insecurity among people with low income, the findings suggest that the services are not adequately achieving their goal. Although many lifestyle education interventions to improve eating habits have been developed, including for people with serious mental illness (Cabassa, Ezell, & Lewis-Fernández, 2010), solutions targeting the lack of financial resources to acquire food are fewer. As such, there is an urgent need for community-based innovations to enhance food security and reduce the effects of poverty.

**Recognition of the limits of service helpfulness.** The findings from Studies 2 and 3 demonstrate that there are limits to the effects that health, social, and community services have in the lives of people with mental illness and histories of homelessness. This is because many of the health and social problems that services are designed to address are dynamic, complex, and interrelated. For example, recovery journeys, by definition, are nonlinear (Anthony, 1993). However, for people with mental illness and histories of homelessness, recovery can also change in response to the emergence of new adversities (e.g., being incarcerated for reasons related to substance use) and be closely tied to other restrictive problems that they experience, such as poverty and social exclusion (Karadzhov, Yuan, & Bond, 2019; Padgett et al., 2016). As such, on their own and as they are now, services are unlikely to fully transform the lives of those accessing them. Even with changes, ameliorative or transformative, the service paradigm may not be sufficient to yield the intended outcomes. Given this, it is important to recognize the limits of service helpfulness.

As social problems, such as mental illness, homelessness, and poverty, exist in the context of complex and dynamic systems, potential solutions, which are typically service interventions, may be unsuccessful when applied linearly (Fowler, Hovmand, Marcal, & Das, 2019; Head, 2008). Accordingly, an awareness that services are insufficient for overcoming intractable social problems will foster new perspectives on how to tackle them. With such an understanding, leverage points in system norms, resources, regulations, and operations can be identified that are amenable to yielding transformative change (Sylvestre, 2014). Contemporary movements to establish housing as a human right and decriminalize drugs can be seen as targeting system norms that would subsequently change regulations and how resources are used to address the homelessness and overdose crises. Of note, both movements are working to effect change outside of the service paradigm as the intended outcomes are not more services but rather transformation of the housing and criminal justice systems. Considering social problems in the complex and dynamic systems in which they exist may increase receptiveness to emergent change (i.e., rapid change that quickly transforms systems and may be led by non-professionals working within the systems; Nelson et al., 2014b).

## Implications for Service Delivery

The findings from this dissertation also have implications for how services can affect recovery and contribute to people's continued involvement in health and social services. Considerations for providing services to individuals during and after episodes of homelessness are also discussed here.

During homelessness, participants in Study 3 described often feeling alone and in a holding pattern as they awaited housing. Yet, the experience of homelessness was also characterized as an ongoing trauma in which people's sense of welfare and safety were continually under threat. Given this, relationships with service providers who are compassionate and nonjudgmental have the potential to be powerful interventions for people experiencing homelessness. Providing opportunities for people to be heard, emotionally supported and validated, and treated fairly can contribute to a more positive service experience. In this way, the intention of the support is not necessarily to problem solve the issues that are being experienced but rather to give people an outlet for discussion and support. There is also a role for mental health service providers to provide education and skills that help people to cope with the harsh daily realities of homelessness. As participants described services as helping with their recovery by finding ways to cope and get by, in the context of homelessness, skills for tolerating distress may be particularly helpful.

A second consideration for furthering recovery during homelessness is related to sense of belonging and social support. Study 2 found that mental health recovery during homelessness was positively associated with physical and psychological community integration. Helping or not helping people experiencing homelessness to become more involved in their communities has potentially thorny implications both ways. On the one hand, doing so may promote mental health recovery yet further entrench people within the homeless community at the same time. If the goal of services is to help people out of homelessness, fostering belonging has the potential to produce resistance and loss when leaving. In contrast, not intervening to help people become more involved in their community has the potential to perpetuate feelings of aloneness and isolation. Accordingly, helping people to develop community connections during homelessness that can be preserved after becoming housed would be most optimal.

After exiting homelessness, services can support people with mental illness by helping them to restore capabilities that were restricted during homelessness. As outlined in the capabilities-informed recovery framework, minimizing unfreedoms is needed to foster recovery. However, because of the limited impacts that services have on capabilities, freedoms that are more responsive to service intervention should be targeted. Service providers can help by connecting people to community groups to prevent isolation and expand people’s support networks. Peer support and self-help groups may also be beneficial for providing people with opportunities for emotional expression. Further, developing or finding volunteer opportunities for those that want to give back, as well as helping people to exercise citizenship and be involved in political decision-making, are ways of effecting change with regard to the capabilities of purpose and control over one’s environment. Lastly, psychotherapy and counselling may help provide people with healthy coping skills as they adjust to life after homelessness. Given that childhood adversities were negatively associated with mental health recovery at 24 months in Study 2, psychotherapy and counselling would also provide an opportunity to work through any past issues in a safe and supportive setting.

## Limitations and Future Research

There are several limitations of the dissertation that have implications for future research. First, recovery in Studies 2 and 3 was measured using a narrow conceptualization that predominantly focused on recovery in the context of mental illness and problematic substance use. However, aligned with past research (e.g., Padgett et al., 2012, 2016), participants in Study 3 discussed their recovery in the context of multiple life adversities that extended beyond their mental health and substance use. As such, the findings may not comprehensively unpack the relationship between service use and recovery. Future research with this population would benefit from adopting a conceptualization of complex recovery and use of a life course perspective. This approach may also be helpful for understanding the recovery trajectories of people after becoming housed, including those who experience difficulties in Housing First.

Second, Studies 2 and 3 used service use data from a single time point to examine the relationships with recovery and capabilities. Though differences between homelessness and housing were explored, the study designs prevented an understanding of how the relationships may change over time. For example, involvement in psychotherapy and counselling may affect recovery to a greater extent after exiting homelessness rather than during the daily survival of homelessness. Future research using a longitudinal design would be helpful for understanding some of the intricacies of service use over time for this population.

Third, the studies that comprised this dissertation did not differentiate between types of homelessness (i.e., chronic, episodic, or transitional). Given that none of the studies had inclusion criteria related to one or more types of homelessness, each sample was likely comprised of a mix of people with histories of chronic, episodic, and transitional homelessness. However, without knowing the representation of each group, the applicability of the findings to the subtypes of the homeless population is unknown. To better support people with mental illness who have histories of homelessness, future research should consider exploring whether the effects of services on housing stability, recovery, and capabilities differ as a function of chronic, episodic, or transitional homelessness.

Fourth, differences in housing may shape the service use patterns of people with past histories of homelessness. However, differences between housing programs (e.g., scattered-site compared to single-site housing, housing with delinked supports compared to linked supports) and neighbourhood were not explored. Because of this, the findings may be more applicable to some housing models than others and should not be overextended to all housed people with mental illness who have past histories of homelessness.

## Conclusions

The findings from Study 1 of this dissertation indicate that the support services used by homeless people with mental illness change as people become stably housed. In particular, use of psychiatric hospitals and prisons decreased. As such, increased or unchanged levels of service use in these domains may be indicators of risk for recurrent homelessness. Because Housing First minimally affected the changes in service use, the findings suggest that housing stability is the key factor that precipitates reduced burden on health and social systems as people exit homelessness.

The other studies of this dissertation highlight how services can promote the recovery and capabilities of people with mental illness who have histories of homelessness but also that there are limits to services' impacts. Services to meet basic needs, such as emergency shelters, food banks, soup kitchens, income supports, and acute healthcare, helped people to *survive* life but not *live* life. As many of these services are central to the community-based support system for people with mental illness experiencing homelessness, there is a need for transformative change within the systems serving this population. This includes experimental testing of innovations, such as the basic income guarantee; cross-sectoral collaboration with representation of people with lived experience to reduce poverty and promote social justice; and recognition of the limits of service helpfulness. The latter on its own will not yield change but rather create conditions that are more conducive to innovation and transformation.

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# Appendix A: Research Ethics Board Approval for Study 1

**File Number:** H04-16-14 **Date (mm/dd/yyyy):** 04/08/2016

Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

## Ethics Approval Notice

### Health Sciences and Science REB

**Principal Investigator / Supervisor / Co-investigator(s) / Student(s)**

| First Name | Last Name | Affiliation | Role |
|---|---|---|---|
| John | Sylvestre | Social Sciences / Psychology | Supervisor |
| Tim | Aubry | Social Sciences / Psychology | Co-Supervisor |
| Nick | Kerman | | Student Researcher |

**File Number:** H04-16-14

**Type of Project:** PhD Thesis

**Title:** The effects of housing stability on service use among homeless and housed adults with mental illness

| Approval Date (mm/dd/yyyy) | Expiry Date (mm/dd/yyyy) | Approval Type |
|---|---|---|
| 04/08/2016 | 04/07/2017 | Approval |

**Special Conditions / Comments:**
N/A

**File Number:** H04-16-14 **Date (mm/dd/yyyy):** 04/08/2016

Université d’Ottawa
Bureau d’éthique et d’intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement (2010) and other applicable laws and regulations in Ontario, has examined and approved the ethics application for the above named research project. Ethics approval is valid for the period indicated above and subject to the conditions listed in the section entitled “Special Conditions / Comments”.

During the course of the project, the protocol may not be modified without prior written approval from the REB except when necessary to remove participants from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the project (e.g., change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, including consent and recruitment documentation, should be submitted to the Ethics Office for approval using the “Modification to research project” form available at: http://research.uottawa.ca/ethics/submissions-and-reviews.

Please submit an annual report to the Ethics Office four weeks before the above-referenced expiry date to request a renewal of this ethics approval. To close the file, a final report must be submitted. These documents can be found at: http://research.uottawa.ca/ethics/submissions-and-reviews.

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at: ethics@uOttawa.ca.

**Signature:**

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# Appendix B: Research Ethics Board Approval for Study 2

**File Number:** H06-16-02 **Date (mm/dd/yyyy):** 07/04/2016

Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

## Ethics Approval Notice

### Health Sciences and Science REB

**Principal Investigator / Supervisor / Co-investigator(s) / Student(s)**

| First Name | Last Name | Affiliation | Role |
|---|---|---|---|
| John | Sylvestre | Social Sciences / Psychology | Supervisor |
| Tim | Aubry | Social Sciences / Psychology | Co-Supervisor |
| Nick | Kerman | | Student Researcher |

**File Number:** H06-16-02

**Type of Project:** PhD Thesis

**Title:** Recovery-oriented Service Use? Exploring the Relationship between Recovery and Service Use among Housed and Homeless Persons with Mental illness

| Approval Date (mm/dd/yyyy) | Expiry Date (mm/dd/yyyy) | Approval Type |
|---|---|---|
| 07/04/2016 | 07/03/2017 | Approved |

**Special Conditions / Comments:**
N/A

550, rue Cumberland, pièce 154 550 Cumberland Street, room 154
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**File Number:** H06-16-02 **Date (mm/dd/yyyy):** 07/04/2016

Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

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Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement (2010) and other applicable laws and regulations in Ontario, has examined and approved the ethics application for the above named research project. Ethics approval is valid for the period indicated above and subject to the conditions listed in the section entitled "Special Conditions / Comments".

During the course of the project, the protocol may not be modified without prior written approval from the REB except when necessary to remove participants from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the project (e.g., change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, including consent and recruitment documentation, should be submitted to the Ethics Office for approval using the "Modification to research project" form available at: http://www.research.uottawa.ca/ethics/forms.html

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If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at: ethics@uOttawa.ca.

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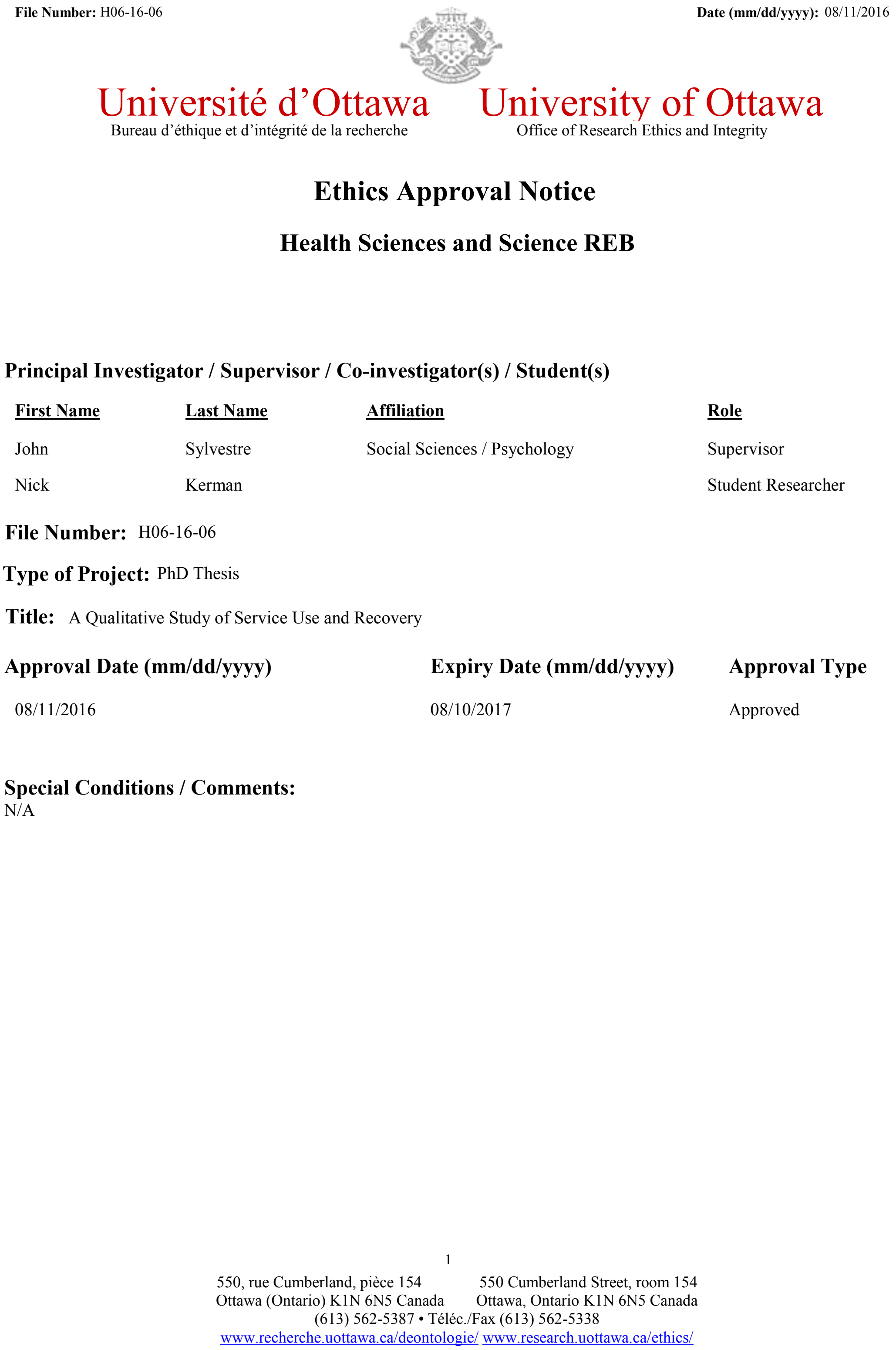
# Appendix C: Research Ethics Board Approval for Study 3



**File Number:** H06-16-06

**Date (mm/dd/yyyy):** 08/11/2016

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## Ethics Approval Notice

### Health Sciences and Science REB

**Principal Investigator / Supervisor / Co-investigator(s) / Student(s)**

| First Name | Last Name | Affiliation | Role |
|---|---|---|---|
| John | Sylvestre | Social Sciences / Psychology | Supervisor |
| Nick | Kerman | | Student Researcher |

**File Number:** H06-16-06

**Type of Project:** PhD Thesis

**Title:** A Qualitative Study of Service Use and Recovery

| Approval Date (mm/dd/yyyy) | Expiry Date (mm/dd/yyyy) | Approval Type |
|---|---|---|
| 08/11/2016 | 08/10/2017 | Approved |

**Special Conditions / Comments:**
N/A

1

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**File Number:** H06-16-06 **Date (mm/dd/yyyy):** 08/11/2016

Université d'Ottawa University of Ottawa
Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement (2010) and other applicable laws and regulations in Ontario, has examined and approved the ethics application for the above named research project. Ethics approval is valid for the period indicated above and subject to the conditions listed in the section entitled "Special Conditions / Comments".

During the course of the project, the protocol may not be modified without prior written approval from the REB except when necessary to remove participants from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the project (e.g., change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, including consent and recruitment documentation, should be submitted to the Ethics Office for approval using the "Modification to research project" form available at: http://www.research.uottawa.ca/ethics/forms.html

Please submit an annual report to the Ethics Office four weeks before the above-referenced expiry date to request a renewal of this ethics approval. To close the file, a final report must be submitted. These documents can be found at: http://www.research.uottawa.ca/ethics/forms.html

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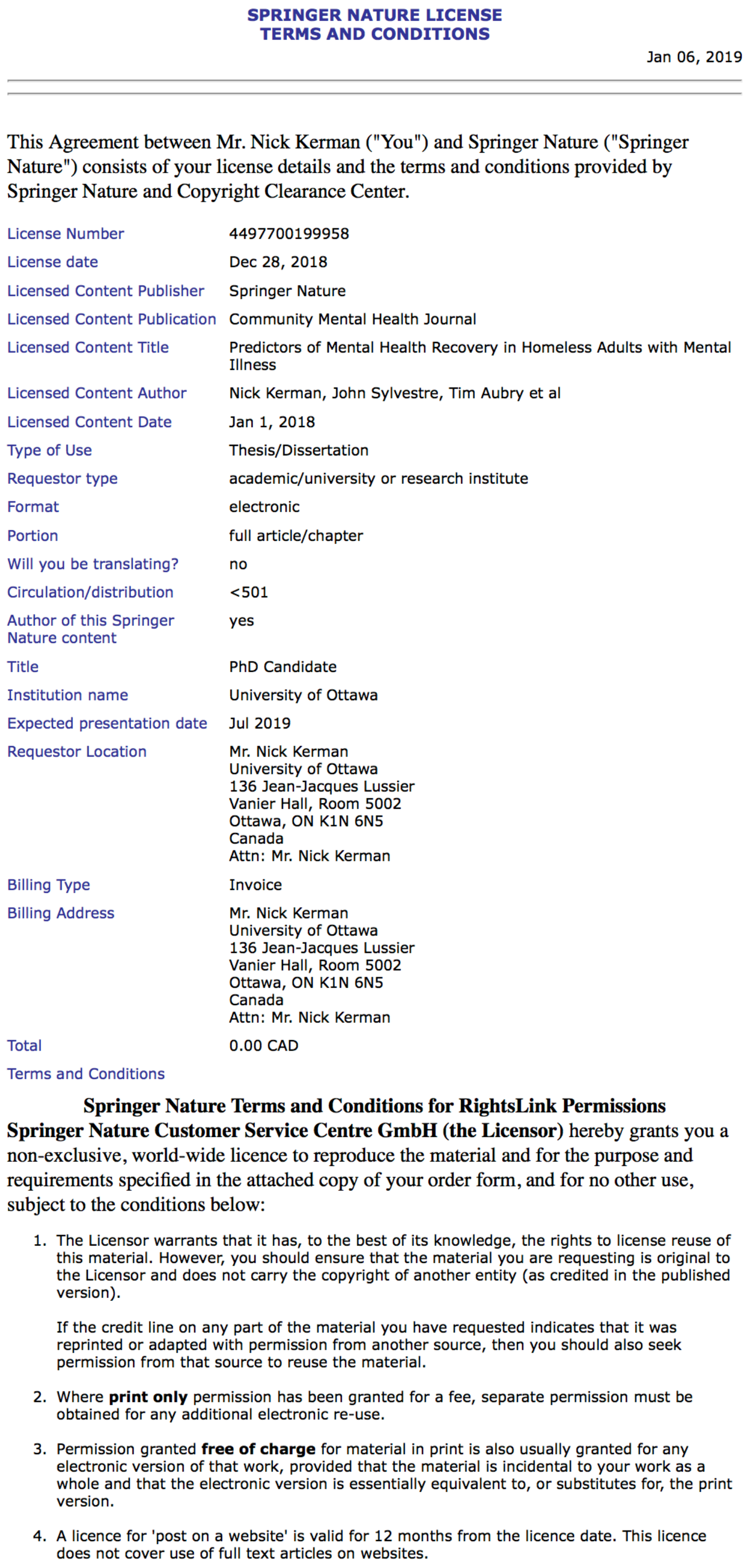

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Appendix E: Recruitment Poster for Study 3

# STUDY VOLUNTEERS NEEDED

Participants are wanted for a study on people's use of health and community services. Interview questions ask about positive and negative experiences using services and how the services you use affect your life.

**As a participant, you would be asked to complete an interview and a short questionnaire lasting about 60-90 minutes**.

## YOU WILL BE PAID $25 CASH FOR YOUR TIME

**You may participate in this study if you:**

- ✓ **have a <u>mental health problem or a diagnosed mental illness</u>**
- ✓ **have been homeless in your life (currently or in the past)**
- ✓ **are 18 years of age or older**
- ✓ **are able to speak English**

**For more information about this study, please contact Nick Kerman:**

**[contact information omitted]**

This study has been reviewed and approved by the University of Ottawa's Research Ethics Board.

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# Appendix F: Consent Form for Study 3 (Unformatted)

## INFORMATION LETTER AND CONSENT FORM

You are invited to participate in a research study about using health, social, and community services. The following information explains what the study is about, what you will be asked to do, risks and benefits of participation, and how any information you provide as a participant will be handled.

### TITLE OF STUDY

A Qualitative Study of Service Use and Recovery

### WHO IS CONDUCTING THIS STUDY?

Nick Kerman, PhD Candidate
School of Psychology
University of Ottawa
Vanier Hall
136 Jean Jacques Lussier
Ottawa, ON, K1N 6N5

John Sylvestre, PhD
Centre for Research on Educational and Community Services
University of Ottawa
Vanier Hall
136 Jean Jacques Lussier
Ottawa, ON, K1N 6N5

### WHAT IS THE STUDY ABOUT?

This is a study to learn about how services affect people's lives. We want to know about your experiences with using health, social, and community services, and how they affect your life.

### WHAT IS MY ROLE IN THIS STUDY?

For this study, we are asking you to participate in an interview that will last about 60-90 minutes. The interview will focus on the types of services that you are receiving. You will also be asked about your mental health and recovery. Prior to the interview, you will be asked to complete a short questionnaire that will gather information about your age, gender, diagnosis, medical conditions, current living situation, and the services that you currently use or have used in the past year. Your views will be tape recorded to ensure that we accurately capture your responses.

A second series of interviews will be held at a later time in the study to review the findings. If you are interested in taking part in a second interview as part of this process, you may provide your contact information at the end of the interview. The second interview is optional, as you may take part in one interview and not a second one.

**Compensation:** You will be given $25.00 in cash for your participation in this study.

## WHO CAN PARTICIPATE?

People are eligible to participate in this study if they meet all of the following:

- have been diagnosed with a mental illness or have a mental health problem
- are currently homeless or have been in the past
- are 18 years or older
- are fluent in English

## WHY SHOULD I PARTICIPATE?

Your opinions are very important. Your participation in this study will help us to better understand people's service experiences and the reasons why services are used. It will also allow us to provide information to service agencies on the positive and negative aspects of services that they offer.

## ARE THERE ANY RISKS TO MY PARTICIPATION?

Participating in this research involves few risks. There is a possibility that some questions may make you uncomfortable, but please remember that you are not obligated to answer questions that make you feel uncomfortable and you may skip them.

The main benefit of participation is the knowledge that you are helping us to understand the impact of services in people's lives and how they can be improved to better meet the needs of people who are using them. Please remember that you may end your participation in the interview and the study at any time.

## PRIVACY, CONFIDENTIALITY, AND THEIR LIMITS

Your answers will be kept private and confidential by the researchers. However, there are some limits to confidentiality. In the event that you disclose risk of harm to either yourself or others during your participation in the study, confidentiality may be broken in order to ensure the safety of the person(s) at risk.

All information collected will be kept in a secure location. In reporting results, your answers will be combined with those of all the other people we will interview. If something you say in the interview is used, it will be reported in such a way that no one will be able to identify you. We will maintain the privacy of your answers by never using your name in reports written based on this study.

## DO I HAVE TO PARTICIPATE?

***No.*** You do not have to participate. Participating in this evaluation is ***voluntary.*** You may refuse to answer any question. You may stop the interview at any time. If you choose not to participate or withdraw, it will not affect your involvement with any of the agencies that you are currently receiving services from, now or in the future.

## HOW WILL INFORMATION COLLECTED IN THE STUDY BE HANDLED?

All information collected from you will be kept **CONFIDENTIAL** to the extent permitted by law. All hardcopy data will be kept in a secure location for up to seven years in a locked office at the Centre for Research on Educational and Community Services at the University of Ottawa. All of the electronic data will be stored on a secure institutional network. Only members of the research team will have access to the data. As an additional precaution, consent forms will be stored separately from collected data.

If you wish to participate in a second interview, any contact information that you provide will be stored separately from your other study data. All contact information will be destroyed upon completion of data collection and will not be retained.

## WHO DO I CONTACT IF I HAVE QUESTIONS ABOUT MY RIGHTS AS A PARTICIPANT IN THIS STUDY?

If you have any questions, you may contact one of the researchers listed above. If you have any questions regarding the ethical conduct of this study or wish to discuss your rights as a participant in this interview, you may contact the Office of Research Ethics and Integrity, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, Ontario, K1N 6N5, ethics@uottawa.ca.

## CONSENT TO PARTICIPATE IN THE SERVICE USE EXPERIENCES STUDY

I acknowledge that the research study described above has been explained to me and that any questions that I have asked have been answered to my satisfaction. I have been informed of my right to choose to not participate in the study. As well, the potential risks and harms have been explained to me and I also understand the indirect benefits of participating in the research study. I know that I may ask now or in the future any questions I have about the study or the research procedures. I have been assured that information relating to me and my health care will be kept confidential and that no information will be released or printed that would disclose my personal identity without my permission unless required by law. I have been given sufficient time to read and understand the above information.

## CONSENT TO AUDIO-RECORDING

☐ ____ (initial) I consent to have this interview audio-recorded.

By signing this consent, I agree to participate in this study. I will be given a signed copy of the entire consent form, including this signature page.

| | |
|---|---|
| X ______________________________ | ____________________________________ |
| Signature of Participant | Name (printed) |
| X ______________________________ | ____________________________________ |
| Signature of Interviewer | Name (printed) |

Date ___________________________

# COMMUNITY SERVICES AND RESOURCES

If any of the content discussed in the interview made you feel uneasy, worried, or distressed, or if you would like to discuss any difficulties that you are experiencing with a professional, below are a list of resources that may be of help to you.

## ARE YOU IN CRISIS?

If you find yourself in a crisis or in need of immediate assistance, go to the nearest hospital or call 911.

## TELEPHONE RESOURCES

(service organizations and contact information omitted)

## COMMUNITY RESOURCES

(service organizations and contact information omitted)

## Appendix G: Demographic Information and Service Use Checklist for Study 3

| **A Qualitative Study of Service Use and Recovery** | | |
|---|---|---|
| Participant ID: | Date: ____/____/_____<br>MM DD YYYY | Interviewer: |

| | | | | | |
|---|---|---|---|---|---|
| **1. Age:** | | | | | |
| **2. Gender (circle):** | ○<br>Male | ○<br>Female | ○<br>Transgender Male | ○<br>Transgender Female | ○<br>Other (please specify below)<br>_________________________ |
| **3. Diagnosis: (mental health and/or substance abuse/addiction)** | | | | | |
| **4. Medical conditions:** | | | | | |
| **5. Do you identify as being an Aboriginal Canadian?** | ○<br>No | | | ○<br>Yes | |
| **6. Where are you currently living (circle)?** | ○<br>Rent-geared-to-income (social) housing | ○<br>Market rent housing | ○<br>Homeless shelter | ○<br>Staying with friends or family | ○<br>Own your own home |
| | ○<br>Supportive housing (there are staff onsite or who regularly visit that provide support) | ○<br>Group home | ○<br>Living on the streets | ○ Other (please specify below)<br>____________________________<br>____________________________ | |
| **7. Homelessness/ Housing History** | If currently homeless, how long:<br>Since ____/____/_____<br>MM DD YYYY<br>OR<br>_____ years, _____ months, ____ days | | | If currently housed, when was the last time you were homeless:<br>Since ____/____/_____<br>MM DD YYYY | |

8. In the past year, have you used any of the following **social services**?

| **Social Services** | |
|---|---|
| ○ Housing support or homecare, including a housing case manager or case worker<br>(assistance with finding or keeping housing) | ○ Governmental social assistance<br>☐ ODSP<br>☐ OW<br>☐ Other: ______________________ |
| ○ Homeless shelter | ○ Employment support |
| ○ Drop-in centre, meal program, or soup kitchen | ○ Education support |
| ○ Street/homeless outreach | ○ Training program |
| ○ Food bank | ○ School (for children) |
| ○ Public transportation | ○ Children's Aid Society |
| ○ Identification services | ○ Immigration services |
| ○ Legal aid/assistance | ○ Military and veterans resources |
| ○ Other social service (describe)<br>______________________________________________________________________ | |

9. In the past year, have you used or been apart of any of the following **community services**?

| **Community Services** | |
|---|---|
| ○ Church or faith group | ○ Daycare (for children) |
| ○ Group or club for your interests or hobbies | ○ Community centre |
| ○ Neighbourhood activities<br>(e.g., community clean-ups, neighbourhood watch, social clubs) | ○ Library |
| ○ Other community service (describe)<br>______________________________________________________________________ | |

10. In the past year, have you used any of the following **health services**?

| **Health Service** | **Reasons for Use (check all that apply)** |
|---|---|
| ○ Emergency department | ○ Mental health<br>○ Addictions/Substance Use (Drugs & Alcohol)<br>○ Medical |
| ○ Hospitalization (overnight/inpatient admission) | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |
| ○ Medication management or pharmacy | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |
| ○ Self-help group/support groups (e.g., Alcoholics Anonymous, SMART Recovery) | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |
| ○ Peer support | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |
| ○ Telephone call to 911, a crisis line, or Telehealth (specify below)<br>________________________________________ | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |
| ○ Outpatient hospital services | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |
| ○ Walk-in clinic | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |
| ○ Day program | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |
| ○ Psychotherapy or counselling | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |
| ○ Health case manager/case worker (including intensive case management) | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |
| ○ Assertive Community Treatment (team of mental health professionals who provide services wherever you are living) | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |
| ○ The Royal's outreach team | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |

| | | |
|---|---|---|
| ○ Safe/supervised injection site | ○ Family doctor | ○ Community health centre |
| ○ Needle exchange or crack pipe exchange (e.g., Oasis, SITE) | ○ Dentist | ○ Community nurse / nurse practitioner |
| ○ Managed alcohol program | ○ Dietician | ○ Health information from a city public health department |

| | |
|---|---|
| ○ Other health service (describe)<br>________________________________________ | ○ Mental health<br>○ Addictions/Substance Use<br>○ Medical |

11. How important are each of the following to you in life?

| **Life Value** | **Not Important** | **Slightly Important** | **Very Important** |
|---|---|---|---|
| Being able to have good health | ○ | ○ | ○ |
| Having a long life (living into your 80s or longer) | ○ | ○ | ○ |
| Feeling hopeful about life and things to come | ○ | ○ | ○ |
| Being aware of and able to manage mental health or addiction symptoms | ○ | ○ | ○ |
| Having access to adequate food and nutrition | ○ | ○ | ○ |
| Having access to adequate shelter/housing | ○ | ○ | ○ |
| Being able to own property (your own home) | ○ | ○ | ○ |
| Being in control of your body (feeling safe, having reproductive choice, being able to go where you like) | ○ | ○ | ○ |
| Feeling responsible and having control over the choices that affect your life, including how to treat your mental health or addiction | ○ | ○ | ○ |
| Having a "normal" life | ○ | ○ | ○ |
| Having equal rights to other citizens, and not being hurt by stigma and discrimination about your mental health or addiction | ○ | ○ | ○ |
| Having respect for yourself and being respected by other people | ○ | ○ | ○ |
| Being able to be seen as more than a person with mental illness, addiction, or a patient | ○ | ○ | ○ |
| Having the ability to have meaningful social roles<br>(social roles are the different roles that people adopt that are important to them and their lives; for example, they can be related to people's families [as a parent, sibling, or child], social networks [as a friend], job [as an employee], community [as a neighbour], and so on) | ○ | ○ | ○ |
| Being free to express your emotions, feelings, opinions, and/or religious beliefs | ○ | ○ | ○ |
| Being free to develop friendships and romantic relationships with the people that you want | ○ | ○ | ○ |
| Being free to enjoy the activities and do the things that you like (hobbies, interests) | ○ | ○ | ○ |
| Being free to have pets or plants in your life | ○ | ○ | ○ |

# Appendix H: Interview Guide for Study 3

At start of interview after the recorder has been turned on:

- State your name [interviewer] and the date
- State that the consent form has been reviewed and signed
- Have the participant verbally confirm that consent form was reviewed and signed
- Ask the participant if s/he has any questions before you begin

## OBJECTIVES

| **Part 1** | **Part 2** | **Part 3** |
|---|---|---|
| • Build rapport with participant<br>• Dimensions of positive and negative service use experiences | • Aspects of services that are helpful<br>• Types of services that are helpful<br>• *How* do services help?<br>• Limits to the helpfulness of services | • Do services help improve the aspects of recovery that people most value? *How*?<br>• Do services help people to have the capabilities that they most value? *How*? |

## Part 1 - Stories of Service Use

Let's begin by talking about a couple times when you had a positive experience using a service or program and a negative experience using a service or program. [If necessary, use the checklist to orient the participant to some of the services that they reported using.]

1. Can you tell me about a time when you used a service with which you had a very *positive* experience? [Positive: an experience where you may have got the services that you wanted or needed, or felt listened to by a service provider, or anything else that made it a good experience for you.]
    - [Use simple prompting to continue the narrative.] What happened then? And then? Tell me more about that.
    - Can you tell me what happened when you used the service?
    - Did something else happen? [Repeat as needed to draw out continuous experiences and events.]
    - What parts of using the service made it a positive experience for you?
    - What parts of the service use experience worked well for you?
    - How was the experience different from what you expected it to be?
    - [If the participant is unsure, ask] Have you thought about the services that use very much before?

2. Can you tell me about a time when you used a service with which you had a very *negative* experience? [Negative: an experience where you may not have got the services that you wanted or needed, or did not feel listened to by a service provider, or anything else that made it a bad experience for you.]
   - [Use simple prompting to continue the narrative.] What happened then? And then? Tell me more about that.
   - Can you tell me what happened when you used the service?
   - Did something else happen? [Repeat as needed to draw out continuous experiences and events.]
   - What parts of using the service made it a negative experience for you?
   - What parts of the service use experience did not work well for you?
   - How did this experience affect your use of this service in the future?
   - How was the experience different from what you expected it to be?

## Part 2 – Service Utility & Usefulness

In this next part of the interview, we're going to discuss some of the services that you are currently using or have recently used, and how they make a difference in your life. Before we began the interview, you completed a checklist of all the services that you are currently using. Now I'd like to ask you a little more about these services and their impact in your life. [If necessary, use the checklist to orient the participant to the services that they reported using.]

3. In general, how are these services helpful to you?
4. What do these services allow you to do in life? (For example, do they help you achieve something you're working toward or meet certain needs?)
   - How, if at all, do these services help you to live the life that you want?
   - How, if at all, have the services that you use changed your life?
   - Without the services that you currently use, is there anything you would *not* be able to do or some way in which you might be worse off?

Let's talk more about each of the services that you're using one by one. [Start with the first identified service then keep going until the list has been exhausted.]

5. Can you tell me more about [*service name*]?
6. How is [*service name*] helpful to you?
   - What is it about the service that is helpful?
   - Would you say that this service has had lasting impacts on your life, or more short-term or temporary impacts?
7. Are there areas of your life where you wished services could be more helpful to you?
   - Are there areas of parts of your life that services don't seem to help with? (For example, are there limits to how helpful the services that you use are in your life?)
   - What services have you been unable to access? How has being unable to use those services affected your life?

8. What parts of your life do the services that you use not help with?
    - So, services don't help with those parts of your life, what does help? [Explore potential benefits of natural supports (friends and family), faith, and people's own autonomy/agency/self-control]
9. Are there areas of your life where services have had negative impacts for you?
10. Is it possible to use too many services?
    - What impacts does using too many services have for you?
    - Can using too many services be detrimental to mental health or addictions recovery?
11. How, if at all, do other service users affect your experience with service?
    - Have you made friends with other people who are using the same services as you?
12. When you use services, does it matter that you have a mental health problem or addiction?
    - [For currently homeless participants, ask] When you use services, do you disclose that you are homeless?
    - What leads you to disclose or not disclose that you have a mental health problem/are homeless?
    - Have you ever experienced stigma or discrimination related to your mental health/homelessness when using a service?
13. [For participants who are housed] Are the services that you use now the same as when you were homeless? (Why or why not?)
    - Are the benefits of services that you use now different than when you were homeless?
    - How are your experiences with using services now different than when you were homeless?

### Part 3 – Service Use & Recovery-Capability Life Values

Finally, I'd like to talk to you a little about aspects of your life that you view as important. On the survey that you completed prior to this interview, you reported [*one/several/a lot of]* features that were important to you in your life. Let's begin with [*select first life value item that is listed as "very important"*]. [Repeat questions 14-17 for each life value identified as slightly or very important until they have been exhausted.]

14. Why is [*use life value item name*] important to you?
15. What helps you to achieve this or live your life in this way?
16. How do the services that you use help you to [*use life value item name*]?
17. How could services do more to allow you to [*use life value item name*]?

### Final Question

18. We've been talking about the services that you use for a while now. How important are services to you in your life?
    - Without the services that you use, how would your life be different?