Title Page

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Unmet needs of persons with a severe and persistent mental illness and their relationship to unmet accommodation needs

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Abstract

This is a cross-sectional study of unmet needs of persons enrolled in Australia's Partners in Recovery [PIR] initiative. It aimed to explore the unmet needs reported by persons with a severe and persistent mental illness (SPMI) and to examine the associations between unmet accommodation needs and other unmet needs. The study was undertaken in the Gippsland region of Victoria from February to May 2015. Data were collected from the administrative database for the PIR initiative in Gippsland, which was held by the Gippsland Primary Health Network. Data on unmet needs, as measured by the Camberwell Assessment of Needs Short Appraisal Schedule (CANSAS), were analysed using proportions and logistic regression. Psychological distress, daytime activities, company/someone to spend time with, and employment and volunteering were the most commonly reported unmet needs. Participants with unmet accommodation needs were less likely to receive information on their condition or access other services. They also had unmet needs relating to food, money, transport, childcare, looking after home, physical health, psychological distress and self-care. Supported accommodation may not be enough for persons with SPMI who have poor functioning skills and are incapable of looking after themselves. Services such as Housing First that have shown promising results need to be part of a comprehensive strategy to care for persons with severe and enduring mental illness.

KEY WORDS: psychiatric rehabilitation; needs assessment; housing; accommodation; severe mental disorders; mental health services; community mental health services

What is known about this topic

- Unmet needs of persons with SPMI include those related to psychological distress, psychotic symptoms, daily activities, social contacts, stress adaptation, physical health and money.
- Supported accommodation models such as Housing First are beneficial for persons with SPMI.

What this paper adds

- Persons with unmet accommodation needs also have unmet needs relating to accessing other services, psychological distress, food, self-care, childcare, physical health, looking after home, and transport needs.
- Persons with unmet accommodation needs have 3.5 times the likelihood of not having their monetary needs met, when compared to people whose accommodation needs are met.
- Currently offered supported accommodation is inadequate for persons with SPMI who are incapable of looking after themselves due to poor functioning and living skills.

Introduction

Individuals with severe and persistent mental illness [SPMI] have significant functional impairment and psychosocial disability (Davidson, Tondora, Lawless, O'Connell, & Rowe, 2009) and as a result have multiple and complex needs such as those related to accommodation, employment, life skills, etc (Burns et al., 2007; Jones, Reupert, Sutton, & Maybery, 2014). Although there are few studies that list the types of needs reported by persons with SPMI, accommodation and housing appears to be a major need and has received significant attention (Graeme, Martin, & Winsome, 2008; Tsemberis, Gulcur, & Nakae, 2004). Furthermore, when these needs remain unmet in persons with SPMI, they are unable to experience recovery. On the other hand, when these needs are met, recovery becomes easier (Lasalvia et al., 2005).

The rationale for this study is therefore twofold. First, understanding the different needs of individuals with SPMI is imperative to design recovery oriented services (Drake & Whitley, 2014). Second, since the home serves as the base from where people can approach the community, form relationships and undertake normative activities (Borg & Davidson, 2008), the presence of unmet housing needs might influence the ability of persons with SPMI to manage other needs. This study was part of the evaluation of the Partners in Recovery initiative in Gippsland, Australia, and has the following aims:

1. To explore the unmet needs reported by persons with an SPMI
2. To examine the associations between unmet accommodation needs and other unmet needs reported by persons with an SPMI

The background of this paper is presented as a review of policy and research relating to needs of persons with SPMI followed by that relating to housing and accommodation.

Research and policy review

Persons with SPMI and their needs

A person is said to have a severe and persistent mental illness [SPMI] when they have a psychiatric diagnosis for which they have been on treatment for two years or more and as a result of which have difficulties carrying out their day to day activities (Ruggeri, Leese, Thornicroft, Bisoffi, & Tansella, 2000). Although most definitions of severe mental illness include dimensions of diagnosis, disability, duration and abnormal behaviour, there continues to be a lack of consensus about the definition (Dieterich, Irving, Park, & Marshall, 2010). Nonetheless, an important reason to define severe and persistent mental illness is to identify those individuals with the most need for care (Slade, Powell, & Strathdee, 1997).

Needs of individuals with SPMI are beyond the scope of what traditional mental health services are designed to address (Fleury, Grenier, Bamvita, Piat, & Tremblay, 2014). Such persons have to live with multiple disabilities which cause them to redefine their understanding of self and identity (Davidson, O'Connell, Tondora, Lawless, & Evans, 2005; Davidson et al., 2009). Together with striving to overcome their symptoms, they have to reassess what they can and cannot do and under what circumstances (Davidson & Roe, 2007). This process of getting back to being socially engaged and productive members of society is

the essence of recovery. It takes a long time and is hence referred to as a 'journey' (Leamy, Bird, Williams, & Slade, 2011).

Individuals with SPMI feel a sense of social isolation and so yearn for relationships and some form of connectedness (Schön, 2010). They find it difficult to access transport and other services (Berren, Santiago, Zent, & Carbone, 1999) as well as stay employed and access ongoing housing (Jones et al., 2014; Wright & Kloos, 2007). In order to achieve recovery, persons with an SPMI need to feel empowered, have choice and control over their lives and be integrated in the community. Empowerment also includes factors such as getting access to education, employment, and housing (Nelson, Lord, & Ochocka, 2001).

Previous studies from Canada and the Netherlands have reported that the most common unmet needs of people with SPMI relate to psychological distress, psychotic symptoms (Fleury et al., 2014) daily activities, social contacts (Wiersma, 2006), stress adaptation, physical health and money (Fleury et al., 2014). Reporting on a 10-year follow-up study of needs of people with a severe mental illness, Arvidsson, (2008) reported that reducing important unmet needs could lead to better psychosocial functioning beyond the specific met need. Other authors have also argued that the more these needs are met in such individuals, the better their self-reported quality of life and higher their chances of recovery (Lasalvia et al., 2005; Slade et al., 2004). However, when discussing needs, it is important to remember that mental health clinicians and persons with SPMI tend to define needs differently (Wiersma, 2006). Only meeting client-stated needs has shown to improve their quality of life (Lasalvia et al., 2005).

Housing/ Accommodation for persons with SPMI

Arguably, the most important need of persons with SPMI discussed in the literature is housing or accommodation (Aubry, Nelson, & Tsemberis, 2015; Holmes et al., 2017; Jones et al., 2014; Tsemberis et al., 2004). For a person with SPMI, being in a stable home or a safe place is imperative to cope with their daily challenges (Borg & Davidson, 2008). The lack of housing can both contribute to mental illness and be exacerbated by it (Morrell-Bellai, Goering, & Boydell, 2000). As a result, providing housing or some kind of accommodation for people with SPMI has been a long-standing priority for services (Graeme et al., 2008).

The process of providing housing for people with SPMI has undergone several changes over the years (Aubry et al., 2015). The need to develop new types of facilities for people with SPMI who were discharged from long stay psychiatric hospitals became apparent soon after the commencement of deinstitutionalisation (Balestrieri, Micciolo, & Tansella, 1987; Gudeman & Shore, 1984). An immediate consequence of this phenomenon was the increased rate of rehospitalisation of persons with SPMI (Spaulding, Sullivan, Poland, & Ritchie, 2010) since there were few facilities between home and hospital that could manage them. Since then the focus of service provision has been to resettle such persons in the community (Barbato, D'Avanzo, Rocca, Amatulli, & D., 2004; Priebe, Hoffmann, Isermann, & Kaiser, 2002) and reduce the frequency of rehospitalisation (Lerner, Hornik-Lurie, & Zilber, 2012).

Hence commenced the development of 'mental health supported accommodation' which has been defined as 'any service that provided support, delivered predominately by non-professionally qualified staff, to people with mental health problems living in community-based accommodation, either alone or in shared settings' (McPherson, Krotofil, & Killaspy, 2018). There has been an assumption that, with proper staged support, people with SPMI would progress from higher to lower levels of supported accommodation (O'Malley & Croucher, 2005). The 'continuum of care model' therefore became standard practice, where homeless people were stepped up from emergency or transitional accommodation until they had enough functioning skills to live independently in permanent housing (Holmes et al., 2017).

International research has shown that supported accommodation brings about a sense of feeling at home for people living with SPMI (Carpenter-Song, Hipolito, & Whitley, 2012). People in this type of housing show more stability in their lives, have been able to develop positive identities, rebuild supportive relationships (Nelson, Clarke, Febbraro, & Hatzipantelis, 2005), and access services and other resources that they need (Culhane, Metraux, & Hadley, 2002). They are able to remain in stable housing for periods of up to five years suggesting that with access to safe and affordable supportive housing, such persons can experience long-term residential stability (Lipton, Siegel, Hannigan, Samuels, & Sherryll Baker, 2000). Therefore ensuring that persons with an SPMI have access to supported and independent housing is a priority for service provision (Aubry et al., 2015).

In addition, a now widely utilised model, 'Housing First', [HF] was developed by Pathways to Housing to address the treatment and housing needs of those who were chronically

homeless on account of their mental illness (Padgett, Gulcur, & Tsemberis, 2006; Stefancic & Tsemberis, 2007; Tsemberis et al., 2004). In this model, people were assisted to move directly from being homeless into permanent housing with no pre-conditions such as service utilisation and treatment (Tsemberis et al., 2004). In HF programmes, clients are provided with “permanent market housing along with services and supports as needed to promote recovery” (Russolillo, Patterson, McCandless, Moniruzzaman, & Somers, 2014). Clients accessed services according to their felt needs. Therefore, although this type of accommodation had no pre-conditions, it was supported by services from mental health professionals (Holmes et al., 2017).

For the majority of persons with SPMI, Housing First was beneficial and resulted in high levels of satisfaction, better quality of life and social functioning as well as psychiatric symptomatology (McPherson et al., 2018; O'Malley & Croucher, 2005). However, a smaller group of people with the most severe and enduring mental health problems who require long-term, permanent accommodation with high levels of support tended to get left behind (Holmes et al., 2017; O'Malley & Croucher, 2005; Pleace, 2018). There have also been some criticisms of the HF model. For instance, issues around model fidelity have been raised where different countries have been modifying the original American service to suit local circumstances particularly in Australia (Johnson, Parkinson, & Parsell, 2012). Furthermore, while housing stability improved, there is no evidence of improved recovery and social inclusion (Johnson et al., 2012). HF therefore needs to be considered part of a strategic homelessness strategy rather than the only model on offer (Pleace, 2018).

Methods

Study design

This was a cross-sectional study using administrative data.

Setting

The Partners in Recovery [PIR] initiative was a national program of the Australian government, which aimed to identify unmet needs of individuals with SPMI, and provide them with recovery oriented wraparound care (Australian Government Department of Health, 2016). In order to achieve this, the initiative aimed to foster inter sectoral collaboration particularly involving agencies that provided non-medical services. The initiative commenced

in 2014, targeting 40,000 individuals in 48 defined regions across the country. In the Gippsland region of Victoria, the initiative commenced in March of that year and targeted about 264 individuals with SPMI.

The Gippsland region is located in the south eastern corner of the state of Victoria covering 41,600 square kilometers and has a population of over 270,000 (State Government of Victoria, 2014). The region extends from the Bunyip river in the west to the New South Wales border in the east and from the coast in the south to Great Dividing Range in the north. The median personal, family and household income levels for Gippsland are below that of both the State and National rates (State Government of Victoria, 2014). Disability Adjusted Life Years (DALY) per 1,000 population for mental disorders is slightly higher (20) than that for the state of Victoria (19.7) (Victorian Government, 2017). In common with other Victorian rural regions, support for residents with SPMI is primarily via the publically funded regional clinical mental health service and access to a limited range of psychosocial supports delivered by a small number of Non-Government Organisations. Minimal access to private psychiatrists in the region compels consumers to seek ongoing clinical care from primary health services when discharged from the region's public mental health service. The region's geography, topography and dispersed population together with the acute demand compromises the regional clinical service's capacity to maintain and provide long term support to those with SPMI.

The PIR initiative in the region was governed by the Gippsland Primary Health Network [GPHN], the local public health administration body and was implemented by three Community Mental Health Support Services (non-clinical) which are not-for profit agencies, in collaboration with the Area Mental Health service (consisting of community mental health services and hospital in-patient services).

Participants and data source

Referrals to the PIR initiative were received by a central intake agency and could be done by a service provider, carer, general practitioner or by the patient themselves. Eligibility to be included in the initiative was determined if the person satisfied the following five criteria:

1. Was experiencing SPMI
2. Had complex needs that required input from multiple agencies
3. Required substantial support to engage with these agencies to meet their needs

4. Had no existing coordination arrangements in place, or arrangements were not meeting their needs, or were contributing to the problems experienced by the person
5. Was agreeable to participation in the PIR initiative and provided informed consent to do so (Primary Health Network Gippsland, 2016).

The operational definition of SPMI for the PIR initiative was designed towards ensuring that clients with complex needs, because of a severe mental illness received the care they needed. In practice, support facilitators determined eligibility by confirming a diagnosis of mental disorder for a period of two years or more with the co-existence of complex unmet needs. Once eligibility was confirmed, the client was registered with an organisation identified to provide the service (Isaacs, Sutton, Dalziel, & Maybery, 2017). Support facilitators from these organisations worked with clients to help them identify and prioritize their various needs and develop a care plan (Sutton, Isaacs, Dalziel, & Maybery, 2016). Support facilitators then worked with a team of service providers (care team) to address those needs.

All data on clients who enrolled for the PIR initiative in Gippsland was stored by GPHN using an online purpose built client information management system called Fixus (Fixus technologies, 2014). The Fixus database contains demographic data as well as scores from the Camberwell Assessment of Need Short Appraisal Schedule (CANSAS). The CANSAS, originally developed as the Camberwell Assessment of Need schedule (Phelan et al., 1995) is the most commonly used instrument for needs assessment in mental health services (S. Evans, Greenhalgh, & Connelly, 2000); (Slade & Royal College of Psychiatrists, 1999); (Wennstrom, Sorbom, & Wiesel, 2004)). Factor analysis of the schedule indicated that it comprised of three main factors – one corresponding to functional disability and the other two corresponding to different aspects of social health (Wennstrom et al., 2004). Functional disability relates to activities of daily living such as ‘food’, ‘self-care’, ‘telephone’, ‘looking after the home’, ‘money’, ‘accommodation’ and ‘transport’. Social health relates to one’s functioning within social roles such as being integrated into the community and having intimate relationships (Arvidsson, 2008; Wennstrom et al., 2004). The inter-rater reliability of this schedule has also been well established (Andresen, Caputi, & Oades, 2000; McCrone et al., 2000). The CANSAS instrument allows for three responses: “no problems (no needs)”, “some problems (needs met)”; or serious problems “unmet needs”.

For the PIR initiative, Community Mental Health Support Services were required to include an additional 3 social and health domains, namely Employment and Volunteering; Cultural and Spiritual; and Other Services, to the original 22 domains (Australian Government Department of Health, 2014). During meetings with clients, support facilitators verbally obtained and documented their responses on the Fixus data base. De-identified data from the Fixus database was obtained one year after commencement of the initiative. Ethics approval for the study was obtained from XXXX University Human Research Ethics Committee (CF15/463 – 2015000230).

Data analysis

Data were analysed using Stata 15 (StataCorp, 2017). Demographic and health status data are reported as proportions or mean and standard deviation. For each area examined using the CANSAS instrument, “no problems (no needs)” and “some problems (needs met)” were coded as “needs met” vs serious problems or “unmet needs” and reported as the proportions of participants with unmet needs.

Logistic regression was used to examine the association between unmet accommodation needs as the independent variable, and each of the remaining unmet needs as the dependent variable. Missing data was accounted for in regression using multiple imputation methods with the `impute logit` command in Stata (10 imputations). Odds ratios (OR) and 95% confidence intervals (CI) describe the likelihood of having an unmet need in one area if accommodation needs are also unmet. The model is adjusted for age, sex and housing tenure < 1 year. These confounders were included as they were intermittently associated with either unmet accommodation needs or other unmet needs using logistic regression.

The variable ‘accommodation type’ was collapsed into private (n=140) vs. other (n=31). Sensitivity testing, repeating the above analyses was undertaken among just those participants living in private accommodation. The same patterns and similar magnitude of associations were seen as for the full sample with the exception of physical health (see supplementary tables). Therefore private accommodation was added as a confounder for the association between physical health and unmet accommodation needs.

Results

176 clients were enrolled in the Gippsland PIR initiative between 31st March 2014 and the 18th of March 2015. Five were excluded because of missing data on accommodation needs, leaving 171 for analysis. As shown in Table 1, more than half the number of clients were female (58%). Most clients were in the age group 25-60 years (88%), unemployed (95%), and living alone (51%) in a private residence (73%). Table 2 shows the health and health-service related characteristics of participants, with 46% having a mood disorder, 68% having no carer, and 52% reporting their GP as the main healthcare provider.

As shown in Figure 1, the highest proportions of unmet needs were seen for psychological distress (82% of participants reported an unmet need in this area), daytime activities (67%), company/someone to spend time with (65%), employment and volunteering (58%) and physical health needs (57%). Almost 44% of participants reported an unmet accommodation need. The fewest unmet needs were seen for education (15%) and safety to others (11%).

In logistic regression, unmet accommodation need was found to be significantly associated with several other unmet needs. Figure 2 shows the association between unmet accommodation need and unmet need in other areas after adjustment for age, sex and housing tenure. Significant, positive associations were seen in several areas, with the highest odds ratios seen for monetary needs (adjusted OR 3.52; 95%CI 1.79,6.91), indicating that participants whose accommodation needs are not met have 3.52 times the likelihood of also not having their monetary needs met, when compared to people whose accommodation needs are met. Other areas demonstrating positive associations include unmet needs in relation to accessing other services, psychological distress, food, self care, childcare, physical health, looking after home, and transport needs. An inverse association was seen between unmet information on condition needs and unmet accommodation needs (adjusted OR=0.44; 95%CI 0.22,0.91), indicating that those whose accommodation needs are not met are 56% less likely to also have unmet information needs, when compared to participants whose accommodation needs are met.

Discussion

Identifying and addressing unmet needs of individuals with SPMI is necessary for improving their quality of life (Hansson, 2006). Interestingly, the most common needs of individuals with SPMI identified in this study namely psychological distress, daytime activities, company/someone to spend time with, and employment and volunteering were also reported more than a decade ago (Wiersma, 2006). Our findings also concur with a recent study from Canada which reported psychological distress as the most commonly expressed need of people with SPMI (Fleury et al., 2014). Stress adaptation, physical health, psychotic symptoms, and money made up the top five needs in that study. Although psychotic symptoms did feature among the unmet needs in our study, the small number of persons with schizophrenia (15%) perhaps explains why unmet needs related to psychotic symptoms were not very common.

Social isolation, loss of connectedness, identity, meaning and purpose as well as negative outlook of professionals can all contribute to psychological distress among persons with SPMI. However, the CANSAS scale only offers a Yes or No response and does not measure severity of need (Fleury et al., 2016). It is important to measure severity if needs are to be prioritised for intervention. This shortcoming was overcome in the PIR initiative as the support facilitator was able to work with clients and their carers to prioritise needs before engaging relevant service providers. Some authors have suggested that psychological distress or depressive and anxious symptomatology can be reduced when clients are informed of the types of services that are available and how to access them (Dezetter et al., 2015).

The unmet needs of daytime activities, company/someone to spend time with, and employment and volunteering highlight the yearning of such individuals to be able to lead a socially connected and productive life. Although, daytime activities and company needs were traditionally considered the responsibility of family and next of kin, there are emerging models that aim to improve social skills (Lloyd, King, & McCarthy, 2007) and networks (Webber, Reidy, Ansari, Stevens, & Morris, 2016) of persons with SPMI. However, more research is needed on the effectiveness of these models in different settings (Webber & Fendt-Newlin, 2017).

Individual placement and support (IPS), is a vocational rehabilitation programme developed in the United States that has been found to be effective in obtaining employment for persons with SPMI and particularly for those who have a poor employment history (Burns et al., 2007; Modini et al., 2016). Clients enrolled in this model have reported financial stability, integration into society, reduced feelings of boredom and isolation, improved social lives and self-esteem, as well as reduction in symptoms (Koletsis et al., 2009). However, despite repeated calls for funding in this sector, implementation of supported employment models are rare.

It is well known that although persons with severe mental illness commonly have a high rate of comorbid physical conditions (Chadwick, Street, McAndrew, & Deacon, 2012), they do not readily access physical health services (Cunningham, Peters, & Mannix, 2013) and have difficulty comprehending medical advice (Chadwick et al., 2012). Hence, they need varying degrees of support to access these services. However, mental health clinicians remain uncertain about who is responsible for enabling access to physical health care (Wynaden et al., 2016). Evaluation of the PIR initiative in Gippsland showed that the support facilitator who played a care coordination role was best placed to organise services from multiple agencies (Isaacs et al., 2017).

The home or a place of residence is the main locus of professional services for people living with an SPMI (Gonzalez & Andvig, 2015) and access to appropriate housing is known to contribute to improvements in mental health (Australian Housing and Urban Research Institute, 2005; G. Evans, Wells, Chan, & Saltzman, 2000; Wells & Harris, 2007). However, finding appropriate accommodation is indeed a major difficulty facing individuals with SPMI (Jones et al., 2014; Lee, Crowther, Keating, & Kulkarni, 2013).

Unmet accommodation needs relate to both homelessness, as well as the inability to maintain accommodation and housing suitability. When homeless or in temporary accommodation, persons with an SPMI are in a constant struggle to find suitable and ongoing accommodation (Honey, Nugent, Hancock, & Scanlan, 2017). Navigating the paperwork, limited access to rules of social housing offers, cost of private rental, tight time lines for house inspection and decision-making, make it rather challenging (Honey et al., 2017).

The patterns and magnitude of associations were similar whether people were living in private accommodation or not, with the exception of physical health needs. Many of the people in 'other' accommodation types were living in hostels or supported care (and 15 just said 'other') and so may have had other physical health issues anyway. Accommodation tenure appears to be more important than whether private or other. The private – public issue is a product of limited suitable public housing stock across the region. Furthermore, affordable private rental stock tends to be older, poorly maintained and on the periphery of townships (Jones et al., 2014).

Once the problem of homelessness is overcome, persons with a severe mental illness move their focus to maintaining their accommodation. For instance, it is critical to get timely mental health and financial advice as well as support in a time of crisis (such as conflicts in the neighbourhood) if they were to maintain their accommodation (Gonzalez & Andvig, 2015; Jones et al., 2014). Other needs expressed include learning how to live a normal life in the community, to be less dependent on the hospital, as well as how to combat loneliness, isolation and rejection (Gonzalez & Andvig, 2015; Jones et al., 2014). Limited access to public transport and access to shops and services is also an issue in Gippsland (Jones et al., 2014).

Furthermore, serious accommodation needs could reflect difficulties in functioning (Korkeila et al., 2005). This is highlighted in the number of co-existing unmet needs experienced by those who reported unmet accommodation needs. According to Maslow's Hierarchy of Needs, food and shelter are physiological needs, which are basic human rights. People who were unable to maintain their accommodation also did not have access to food, money, medical and other services, were unable to look after themselves, or their home and did not know enough about their illness.

The association between unmet accommodation needs and unmet childcare needs also requires special attention. Adult mental health services rarely consider that their clients could be parents and that their illness is likely to impact on their children's mental health (David, Styron, & Davidson, 2011; Diaz-Caneja & Johnson, 2004; Jeffery et al., 2013). For instance, the perception of succeeding or failing as a mother can have a significant impact on her wellbeing as well as her ability to recover (Nicholson, 2014). However, there is still no clear-cut strategy on how to support parents with SPMI (Schrack, Moran, Borghi, & Priebe, 2015).

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The inverse association between unmet information on condition needs and unmet accommodation needs could probably be due to a lack of understanding of or low priority for information needs due to psychological distress, low levels of functioning or both. Such individuals are in urgent need of care and support and need to be prioritised in service provision. However, this is not necessarily the case. Owners of residences where such persons are housed are often confronted with problems such as mismanagement of apartments, provocative behaviour and sensitivity among neighbours for which they receive little or no help from mental health services (Bengtsson-Tops & Hansson, 2014). This is a sensitive issue and an emerging one because mental health service providers might ask, ‘What more can we do?’ A study from Melbourne suggests that such individuals might also have a personality disorder which is difficult to manage (Holmes et al., 2017). As a result, persons with SPMI who have low functioning levels tend to be constantly moved from one type of accommodation to another. Furthermore, since availability of supported accommodation for persons with SPMI is limited in Australia (Harvey, Killackey, Groves, & Herrman, 2012), many of those who are able to maintain ongoing accommodation due to better levels of functioning are likely to have secured it.

Of those who reported unmet accommodation needs, 73% lived in a private residence and 80% had no carer. It seems the system has been unable to find a way to help this group of individuals with poor functioning and living skills and who are not capable of looking after themselves. HF services described earlier have shown to result in reduced rates of rehospitalisation as well as improved satisfaction, quality of life, social functioning and psychiatric symptomatology both internationally (McPherson et al., 2018; O'Malley & Croucher, 2005; Russolillo et al., 2014) and in Australia (Holmes et al., 2017). However, these services are not yet available in Gippsland. Owing to a lack of housing, a relatively smaller group of persons have to make do with temporary or emergency accommodation as shown in Table 1.

Broadly, this study highlights the lack of rurally orientated models of mental health care. Current approaches using urban-centric approaches in rural areas tend to concentrate on supporting those in acute crisis. Furthermore, the challenges of meeting the intensive support needs of those in crisis serves to mitigate the capacity of rural services to provide longer-term intensive support to those with SPMI. In the absence of rural models of care, the findings

highlight that despite current service constraints, much was achieved through empowering consumers to co-ordinate support around their needs.

The PIR initiative has now been replaced by the National Disability Insurance Scheme (NDIS). However, this has not been without problems. When the NDIS was originally designed, psychosocial disability was not a focus. As a result, there have been eligibility concerns for those with this type of disability (Williams & Smith, 2014).

There are a few limitations to this study. First, this was a cross-sectional study, which could only comment on associations. Controlled studies would provide more insight into causation if any. Second, the sample was restricted to those who enrolled with the Partners in Recovery initiative. It is therefore possible that those whose needs were recorded were mostly those who struggled to maintain accommodation due to a lack of higher levels of care and support. Nonetheless, this study outlines the entire spectrum of needs reported by people with SPMI as well as highlights how unmet accommodation needs could impact on the individual's ability to manage other needs.

Conclusion

The most commonly reported unmet needs of persons with SPMI related to psychological distress, daytime activities, company/someone to spend time with, employment and volunteering and physical health. Persons who reported unmet accommodation needs also reported several other unmet basic needs such as food, money, and the inability to look after themselves and their home. This suggests that persons with SPMI and low levels of functioning who need long term accommodation with high levels of care and support are currently being left out of the mental health system. Services such as HF that have shown promising results need to be part of a comprehensive strategy to care for persons with severe and enduring mental illness.

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Table 1: Demographic data for n=171 clients with severe and persistent mental illness at enrolment in the Partners in Recovery Initiative

<i>Variable name</i>	<i>Number</i>	<i>Percent</i>
Female	99	57.9%
<i>Age</i>		
Age (years)	Mean (standard deviation)	45.5 sd 12.3
<25years	4	2.3%
25-44 years	74	43.3%
45-60 years	73	42.7%
60+ years	20	11.7%
<i>Aboriginal (not Torres Strait Islander)</i>		
Yes	5	2.9%
No	162	94.8%
Not stated	4	2.3%
<i>Living arrangements</i>		
Lives alone	87	50.9%
Single parent	22	12.9%
Couple (with or without children)	24	14%
Lives with other family	28	16.4%
Lives in a group	9	5.3%
Not stated	1	0.6%
<i>Relationship status</i>		
Married	24	14%

Never married	86	50.3%
Separated or divorced	50	29.1%
Widowed	8	4.7%
Not stated	3	1.8%
<i>Employment status</i>		
Not in labour force or unemployed	162	94.7%
Employed	8	4.7%
Not stated	1	0.6%
<i>Educational attainment</i>		
Junior secondary (includes no or primary education only)	65	38.1%
Senior secondary (completed secondary)	51	29.8%
Certificate or diploma	31	18.1%
Graduate level education	9	5.3%
Not stated	14	18.2%
<i>Type of accommodation</i>		
Private residence	140	81.9%
Homeless	5	2.9%
Supported accommodation/aged care	7	4.1%
Other	17	9.9%
Not stated	2	1.2%
<i>Accommodation tenure</i>		
<1 year	75	43.9%
1-2 years	28	16.4%

3-4 years	27	15.8%
≥5years	34	19.9%
Not stated	7	4.1%

Table 2: Health data for n=171 clients with severe and persistent mental illness at enrolment in the Partners in Recovery Initiative

<i>Variable name</i>	<i>Number</i>	<i>Percent</i>
<i>Principal diagnosis</i>		
F00-F09 Organic, including symptomatic	5	2.9%
F10-F19 Mental and behavioural disorder	8	4.7%
F20-F29 Schizophrenia, schizotypal and delusional disorders	24	14.04%
F30-F39 Mood [affective] disorders	79	46.2%
F40-F48 Neurotic, stress-related and somatoform disorders	22	12.9%
F50-F59 Behavioural syndromes	2	1.2%
F60-F69 Disorders of adult personality	15	8.8%
F70-F79 Intellectual disability	1	0.6%
F90-F98 Behavioural and emotional disorders with childhood onset	10	5.9%
F99-F99 Unspecified mental disorder	5	2.9%
<i>Carer availability</i>		
No carer	117	68.4%
Formal carer	18	10.5%
Informal carer	35	20.5%

Not stated	1	0.6%
<i>Main service provider</i>		
General practitioner	88	51.5%
Public mental health service	57	33.3%
Private mental health professional or psychiatrist	13	7.6%
Other	6	3.5%
No service provider	6	3.5%

Figure 1: Unmet needs in n=171 clients with severe and persistent mental illness

% show the proportions of participants reporting an unmet need in that variable.

Missing data (n, %): Psychological distress=2 (1%); Daytime activity=2 (1%); Company=4 (2%); Employment/ volunteer=5 (3%); Physical health=9 (5%); Monetary=4 (2%); Accommodation=0; Access to services=6 (4%); Transport=1 (0.6%); Intimate relationships=8 (5%); Food=0; Psychotic symptoms=11 (6%); Looking after home=1 (0.6%); Safety to self=5 (3%); Information on condition=5 (3%); Sexual expression=28 (16%); Self-care=2 (1%); Benefits=16 (9%); Alcohol abuse=7 (4%); Childcare=2 (1%); Drug abuse=7 (4%); Cultural or spiritual=14 (8%); Education needs=4 (2%); Safety to others=5 (3%).

Logistic regression adjusted for age, sex and housing tenure (and for private vs. other accommodation in Physical Health).

*Indicates that odds ratios are statistically significant

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