


Examining the health and well-being profile of people experiencing primary homelessness: the social work perspective at a major metropolitan teaching hospital

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Abstract.

Objective. The literature has established a significant increase in morbidity and mortality among people experiencing primary homelessness, along with a pattern of using acute hospitals in place of primary healthcare services. This study examined how health services can engage and support people experiencing homelessness.

Methods. Participants were prospectively identified by acute hospital social workers in the course of providing usual care. All participants identified as experiencing primarily homelessness immediately before acute inpatient hospital admission. This study used the Vulnerability Index – Service Priority Decision Assistance Tool (VI-SPDAT) and Personal Wellbeing Index – Adult (PWI-A) to evaluate vulnerability and well-being respectively. VI-SPDAT data was analysed using frequencies and proportions for categorical variables and mean \pm s.d. for continuous variables. PWI-A data was analysed using one sample t-tests were used to compare the study sample against representative data from the general population. Study data identified factors present in the sample population which are likely to impact their engagement with health services.

Results. On the PWI-A, study participants ($n = 14$) scored significantly lower on all measures of well-being than a representative sample from the general population ($P \leq 0.05$). The VI-SPDAT indicated that 79% of participants experienced trimorbid physical, mental and substance misuse issues, and had high rates of indicators of past or current trauma, such as abuse or assault leading to or occurring while homeless (71%) and being raised in foster care (50%).

Conclusions. In conclusion, a model of health care provision to a homeless population should incorporate a trauma-informed, multidisciplinary approach across the inpatient–community continuum. This is consistent with findings and recommendations of other studies and will lead to better health and well-being outcomes. The anticipated benefits of such an approach include a decrease in preventable health conditions and opportunities to address issues that are not the primary reason for seeking health care, including access to housing and treatment for substance misuse.

What is known about the topic? It has been established in the literature that people who are experiencing primary homelessness are likely to experience morbidity and mortality at a far higher rate than domiciled people. It has also been established that an underutilisation of primary and preventative healthcare services by this group results in a higher rate of preventable health conditions than for domiciled people.

What does this paper add? This paper adds information regarding personal well-being and indicators of vulnerability in a population of patients who were identified as experiencing primary homelessness during an acute hospital inpatient admission. Analysis of these results provides a picture of the types of health conditions experienced by the participants, as well as indicators of trauma and adverse life events. We propose a model of healthcare service delivery that this study indicates would decrease the rate of preventable health conditions in the homeless population. This model would also provide a way to engage people experiencing homelessness. This then provides an avenue by which issues other than the primary reason for seeking health care can be addressed with this group, such as housing and treatment for substance misuse.

What are the implications for practitioners? This paper provides a proposed model of health care delivery based on evidence from the present study and other literature. The evidence suggests that the model proposed would more effectively engage people experiencing homelessness in addressing their healthcare needs and reducing unnecessary utilisation of acute hospital inpatient beds.

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Introduction

Although housing has been enshrined as a human right for over 70 years, the past three decades have seen the number of people experiencing homelessness increase globally. In Australia, there is an estimated 116 427 people without stable accommodation each night.^{1–3}

People experiencing primary homelessness are defined as those without access to shelter or conventional dwellings, such as those sleeping on the street, in cars, in disused buildings or under bridges.^{4,5} Primary homelessness is, by nature, hidden and difficult to accurately quantify. Although people experiencing primary homelessness account for a small subset (~7%) of the broader homeless population, this group includes the most vulnerable and marginalised members of our community.³ As a social determinant of health, access to safe, stable and secure housing is key in improving health outcomes.⁶

Experiencing homelessness is the result of a complex interaction of variables, including poverty, family violence, substance misuse and a lack of affordable housing.⁷ However, this article focuses specifically on the health and well-being profile of people experiencing primary homelessness to inform more effective engagement with and the delivery of healthcare services.

There is a well-established correlation between homelessness and health status, with homeless individuals having poorer physical and psychological health than the general population.⁸ This includes the exacerbation of underlying conditions such as mental health and substance misuse disorders, as well as physical health outcomes linked to the conditions of homelessness, including poor nutrition, dentition, management of non-communicable diseases and a high incidence of violence and unintentional injury.^{6,8,9}

In addition to increased morbidity, this population is at greater risk of mortality. One study demonstrated the mortality rate for all causes of death in people experiencing primary homelessness in Boston was 9.8% higher than that of the general population of Massachusetts and 2.7% higher than that of the homeless population in Boston who primarily used homeless shelters.¹⁰ When adjusting for previous hospitalisation, sex and age, the primary homeless population retained an increased risk of mortality.¹¹ Another study measured the death rate in the emergency department of people experiencing homelessness at 12-fold greater than that of the general population.¹² These studies show that homelessness itself is a significant risk factor for mortality.

When considering morbidity and mortality in the homeless population, it is important to consider the way this group accesses health care. Typically, health care is accessed via hospital emergency departments rather than through primary health and preventative services.^{8,13–16} One study in an

Australian metropolitan hospital revealed that during the study period people experiencing homelessness accounted for 10% of emergency department visits; of this group, 43% later re-presented to the same emergency department.¹⁷ A study in the UK found people experiencing homelessness are sixfold more likely to attend the emergency department than the general population.¹⁸

A multicentre Australian study estimated that in a group of people who experienced primary homelessness, the mean cost for emergency department presentations over a 6-month period was A\$3102 per person and A\$17 811 per person for inpatient care.¹⁹ One estimate put the savings from effectively addressing the healthcare needs of people experiencing homelessness in Brisbane, Australia, at between A\$3.64 million and A\$3.83 million per annum for inpatient admissions and between A\$3.32 million and A\$3.57 million per annum for emergency department presentations.²⁰

Less well understood is the psychological health profile of people experiencing homelessness. Research has explored the link between homelessness and psychological factors, including the effects of early life trauma, a sense of purpose and connection. Evidence is emerging that a high incidence of trauma among vulnerable populations, including the homeless, leads to poorer physical and mental health outcomes.²¹ Despite the assumption that people experiencing homelessness are isolated and alone, a strong degree of connectivity and sense of community has been described, due, in part, to the lack of physical barriers around oneself.²²

This population presents diagnostic, treatment, risk, safety planning and discharge challenges. To improve quality of care and outcomes for people experiencing primary homelessness, a more complete understanding of their specific needs is required. The aims of this study were to examine the health and well-being of acute hospital inpatients experiencing primary homelessness and to identify barriers preventing engagement with health services and inform future service delivery.

Methods

Study design, setting and participants

A descriptive cross-sectional study was conducted in a major metropolitan tertiary teaching hospital in Melbourne, Australia. Participants were recruited using convenience sampling from acute medical inpatient wards. Participants had to be ≥18 years of age, be admitted to an inpatient hospital ward, have cognitive capacity to consent to participate in the study and were identified as experiencing primary homelessness. Eligible participants were prospectively identified through routine social work screening from June to November 2017. The tools, namely the

Vulnerability Index – Service Priority Assistance Tool (VI-SPDAT)²³ and the Personal Wellbeing Index – Adult (PWI-A),²⁴ were administered verbally by the researchers in a single session.

Approval for the study was obtained from the hospital research ethics committee before commencement of the study. Written informed consent was obtained from all participants before their participation in the study.

Data collection

Two senior clinical social work practitioners (HMc and KR) at the study site were trained in completing the VI-SPDAT²³ and PWI-A.²⁴ All obtained data were self-reported.

The VI-SPDAT has been developed to assist with prioritising the need for housing support. The VI-SPDAT focuses on numerous areas in a person's life with a particular focus on psychosocial factors and health conditions. Together, the data can be scored using a standard scoring tool to provide an indication of the level of need and urgency for housing assistance. A standard scoring matrix for trimorbidity is also provided.²³ The present study did not use the standard housing assistance score for each participant, information gathered, such as health conditions and indications of past trauma, were used to inform the recommendations. Although the VI-SPDAT is widely used, it is considered to be evidence informed, rather than evidence based, as a measure of housing vulnerability.^{23,25} Therefore, the validity and reliability of the tool has been challenged.²⁵

The PWI-A assesses a person's well-being via self-reported measures of quality of life. The PWI-A scale contains seven areas that collectively assess subjective satisfaction with 'life as a whole'. Each area corresponds to a quality of life domain with a further discretionary domain of 'spiritual or religion', which was included in the present study for completeness.²⁴ The PWI-A is considered to be a valid and reliable tool.^{24,26,27}

Data collected from medical records included sociodemographic data, living arrangements and admission frequency.

Data analysis

Demographic and VI-SPDAT data are reported using frequencies and proportions for categorical variables and as the mean \pm s.d. for continuous variables.

PWI-A data were analysed as separate variables and summed to yield a mean score representing subjective well-being. One-sample *t*-tests were used to compare mean PWI-A study sample item scores to a representative sample from the general population, referred to hereafter as normative data.²⁴ Analyses were performed using the statistical software package Stata.

Results

Demographic data

The study sample consisted of 14 participants. The length of time spent experiencing primary homelessness ranged from 2 to 408 months with a median of 13 months (mean 69 ± 114 months). Participants were predominately single males and aged 22–59 years, with a mean age of 36 ± 10 years. Most identified as Australian and all identified as unemployed (Table 1).

Table 1. Demographic characteristics of the study participants ($n = 14$)

	<i>n</i> (%)
Sex	
Female	4 (28)
Male	10 (72)
Relationship status	
Partnered	2 (14)
Single	12 (86)
Ethnic background	
Australian and do not identify as Indigenous	11 (79)
Australian and identify as Aboriginal and/or Torres Strait Islander	1 (7)
Other	2 (14)
Education (highest completed)	
Primary	8 (57)
Secondary	2 (14)
Apprenticeship/tertiary	4 (29)
Employment	
Disability pension	7 (50)
Unemployment pension	6 (43)
No income	1 (7)

Analysis of the PWI-A

When examining PWI-A scores, participants scored significantly lower on all measures of well-being than the normative sample ($P \leq 0.05$). The measures 'standard of living' and 'achieving in life' incurred the greatest variance in mean scores between the study and normative data. In comparison, participants' mean scores for measures of 'personal safety' and 'spirituality or religion' scored closest to normative data (Table 2).

Physical and psychological health profile

Data obtained via the VI-SPDAT found a trimorbidity of substance misuse and physical and mental ill health in 79% of participants.

One of the key findings in this study was the high incidence of preventable health conditions. These conditions, as described in the VI-SPDAT, include dental problems, hepatitis C, skin infections, dehydration and frostbite or hypothermia. There were also indicators of psychological health issues, such as problematic drug and alcohol use, treatment for drugs or alcohol and blackouts as a result of drug and/or alcohol use (Table 3).

The profile of this group, as illustrated by their physical and psychological health, is further enhanced by considering indicators generally associated with reported exposure to past trauma. This includes having been in police custody or prison and being raised in foster care. A high incidence of assault, abuse or trauma was identified as leading to homelessness or occurring since becoming homeless. In addition, engaging in risk-taking behaviour and the presence of a serious brain injury or trauma were also identified as contributing to the complexity of the participants' psychological profile (Table 4).

Eight of the fourteen participants (57%) reported using a hospital emergency department as their primary place to access health care.

Table 2. PWI-A: mean scores of the study sample (*n* = 14) versus normative data

	Study sample		Normative sample ²⁴	
	<i>n</i> ^A	Mean \pm s.d.	<i>n</i>	Mean \pm s.d.
Personal wellbeing index	13	34.5 \pm 17.9	57 591	75.5 \pm 13.9
Standard of living	13	27.6 \pm 27.7	60 076	79.4 \pm 17.5
Health	13	33.8 \pm 20.6	60 070	73.2 \pm 20.0
Achieving in life	13	26.1 \pm 21.4	59 693	72.6 \pm 19.8
Personal relationships	13	39.2 \pm 29.2	59 766	78.6 \pm 22.7
Personal safety	13	48.4 \pm 28.2	59 903	80.3 \pm 18.6
Community connectedness	13	30.0 \pm 19.5	59 707	72.4 \pm 20.2
Future security	13	36.1 \pm 30.9	59 164	71.2 \pm 21.1
Spirituality or religion ^B	13	48.4 \pm 35.7	19 320	73.8 \pm 4.2
Global life satisfaction	13	31.5 \pm 19.5	60 036	75.9 \pm 18.3

^AOne participant declined to complete measure.^BThe spirituality or religion normative range is measured across 13 PWI-A surveys.**Table 3. Physical and psychological health indicators as described in the VI-SPDAT (*n* = 14)**

Health factors reported	<i>n</i> (%)
Dental issues	12 (86)
Trimorbidity ^A	11 (79)
Problematic drug or alcohol	10 (71)
Difficulty concentration/memory	10 (71)
Intravenous drug use	9 (64)
Hepatitis C	8 (57)
Treated for drug or alcohol problem	8 (57)
Foot/skin infections	8 (57)
Alcohol or drugs taken daily for 30 days	7 (50)
Blacked out due to drug/alcohol	6 (43)
Been told they had a learning disability	6 (43)
Dehydration	6 (43)
Heart disease	5 (36)
Asthma	5 (36)
Convulsions	5 (36)

^ATrimorbidity was calculated using a standard scoring tool contained in the VI-SPDAT.²²**Table 4. Indicators of trauma (*n* = 14)**

Indicator	<i>n</i> (%)
Have been in police custody or prison	11 (79)
Abuse, assault or trauma led to homelessness	10 (71)
Assault or attack since becoming homeless	10 (71)
Engaged in risk behaviours	8 (57)
Friends or family take things or make you do things you do not want to	8 (57)
Not enough money to meet expenses	8 (57)
Been in foster care	7 (50)
Serious brain injury or trauma	7 (50)

Discussion

Taken as a whole, the results of the present study provide an insight into considerations for designing an effective model of health care for the broader homeless population. The areas fall broadly into the domains of physical health, psychological well-being and trauma.

Indicators of trauma give a picture of a population that has high levels of overt trauma, such as being assaulted or attacked, either leading to homelessness or since becoming homeless. There were also several factors that are commonly associated with past trauma, such as having been in prison or police custody, coercion by others, having a serious brain injury and having been in foster care. This is consistent with a large study conducted across several Australian capital cities and regional centres using VI-SPDAT data.¹⁹ This population is made more vulnerable by the complex relationship between insecure housing, employment, financial stress and the effects these have on mental and physical health.^{28,29}

From a physical health perspective, one of the most concerning findings of this study was the high prevalence of preventable health conditions, including dental conditions, hepatitis C, foot and skin infections and dehydration. Consistent with other studies,^{6,13–15,30} this shows a pattern of the underutilisation of primary health care and attending hospital emergency departments or using other tertiary hospital services. This is often at the point where preventable conditions have progressed to advanced stages, requiring more significant medical intervention.^{6,13–15,30}

Psychological factors, measured by the VI-SPDAT and PWI-A, gave a mixed picture. Some factors indicated psychological distress or difficulty, such as the problematic use of drugs and alcohol, threats of harm to self or others, contact with mental health workers and hospital presentations related to mental health. However, indicators of psychological well-being were also present. For example, over two-thirds of the study population indicated that they had planned activities every day, with most participants being able to name a place at which they would regularly be found. This indicates the presence of routine, connection and meaning, which serve as protective mechanisms against depression. Although the number of participants who had a mental health worker they had spoken to within the past 6 months could be considered an indicator of psychological distress, it could equally be interpreted as a source of psychological support. When considering measures of personal well-being, standard of living and achieving in life were markedly decreased compared with the normative data. In contrast, spirituality or religion scored closest to the normative data. This may be attributable to religion or spirituality serving as a protective factor against feelings of vulnerability, offering a

sense of protection by God. Similarly, a belief that God has control of events has been found to engender a feeling in individuals of indirect control over events in their life.³¹ A further commonality among all religions is a framework within which individuals are encouraged to accept and come to terms with their most difficult and challenging circumstances.³²

The presence of trimorbidity in most participants was an important finding because it contributes to the growing evidence of the relationship between homelessness and comorbid physical and mental ill health with problematic substance misuse.³³ It also provides an insight into the model of care required to support this cohort to improve health outcomes and psychosocial well-being.

Limitations

This study was limited because anyone without the capacity to undertake completion of the VI-SPDAT and PWI-A, even with support from the researcher, was excluded. This meant that people whose cognitive abilities were impacted by head trauma, the chronic use of drugs and alcohol or age-related factors were excluded. This excluded most of the older inpatients experiencing homelessness and resulted in a cohort that was younger, on average, than has been found in other studies at this tertiary hospital. This, along with the small sample size, limits generalisation of the findings to a degree, although many of the findings are consistent with other literature in this area.

Areas for future research and implications for service delivery

There are several areas for further research that would enable a deeper understanding of the findings from this study. For example, further exploration around the presence of spirituality and religion would be useful in better understanding the higher-than-expected result in this area.

Findings from the present and other studies indicate numerous areas where hospitals can have an effect on the physical and psychological health of homeless patients using their services. For example, over half the participants nominated hospital emergency departments as the place they access primary health care. Rather than being considered an inappropriate use of emergency department resources, this could be viewed with the lens of opportunity. Understanding the multiple barriers and enablers regarding access to health care for people experiencing homelessness ensures a model of care can be designed accordingly.³⁰ The presence of a multidisciplinary team delivering health care across both hospital and community settings has been found to be highly effective for this population.^{8,34,35} This is particularly so where the model has included specialist hospital discharge teams, assertive outreach and 'drop-in' sessions, as opposed to appointments, and an opportunity to address issues other than the primary presenting health concern.^{30–32,34–39}

Conclusion

We conclude that a model of care could be developed focusing on addressing preventable physical and psychological health conditions via the inclusion of disciplines such as pharmacy and dentistry alongside social work, nursing and medical professionals. Delivering a model that integrates specialist hospital

care, where needed, with a primary health care approach would more effectively meet the needs of patients experiencing homelessness and be consistent with the strategic directions of many healthcare organisations to deliver care 'beyond the hospital walls'. Provision of care via a 'drop-in' clinic would mirror the availability of an emergency department and provide avenues for discussion about issues affecting the patients that are outside their immediate health care needs. This may include housing, drug and alcohol rehabilitation and access to family violence support. The model of care would be shaped by evidenced-based practice in trauma-informed care, considering the unique needs of the homeless population in relation to trust, engagement and connectedness. By delivering care that is appropriately tailored to meet this population's specific needs, there is an opportunity to improve health and quality of life outcomes while restoring dignity and humanity to people experiencing homelessness.

Data availability

The data that support this study cannot be publicly shared due to ethical or privacy reasons and may be shared upon reasonable request to the corresponding author, if appropriate.

Competing interests

The authors declare no competing interests.

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