LITERATURE REVIEW

Homelessness, health status and emergency department use: An integrated review of the literature

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Summary

Background: Homeless people have complex health care needs, and they have difficulty accessing and utilising health services appropriately. These factors are associated with living in poverty, and in particular, residing in poor quality transient housing. Due to the complexity of their social disadvantage a flexible and timely response is required by emergency departments that extend beyond the traditional models of health care. The purpose of this integrated literature review was to identify the key risk factors that impact on the health service utilisation of people who experience homelessness.

Methods: The review of literature extended from 1980 to 2005, examining peer review journal articles as well as unpublished community and hospital based reports.

Results: The risk factors identified included: mental illness, drug misuse, violence, social isolation, dual diagnosis, cognitive impairment and chronic illness.

Conclusions: Social isolation and poverty impact on health status and the way health services are utilised. There is a need for early recognition and referral to appropriate services for this at risk population.

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Homelessness affects men and women, young and old, singles and families. Homelessness can be for a short term, usually after a crisis, to long term and exist over a life time. Homeless people may have no place of abode, live in a boarding house, or reside in unstable housing. While health issues for homeless people are equally varied and complex, all are characterised by poverty and lack of secure permanent accommodation.

The homeless population comprises people of all ages; men, women and children. These individuals often have a history of chaotic family situations, drug-related prob-
Homelessness and health

Lemons, mental health issues, chronic disease and intellectual impairment. Because of the chaotic nature of their life styles and the chronic nature of their illnesses homeless people can habitually attend an emergency department (ED) when in crisis. These people often perceive that they have nowhere else to go, or do not have the resources to access alternative services, when they experience a psychosocial crisis.

Emergency nurses need to be able to correctly identify homelessness and make appropriate referrals for homeless people at point of entry. Failure to identify and refer homeless people to the right services on discharge is likely to result in subsequent re-presentation to the ED, and place additional strain on already limited ED resources. This review will address the question: What are the key risk factors that impact on the health service utilisation of people who experience homelessness?

Significance

Homeless people experience difficulties in accessing health services and health service providers have limited resources, flexibility and understanding to help the homeless. As a result of these difficulties, "the homeless have more health impediments and disabilities, and experience higher mortality and morbidity rates than the general population."

Individuals who are economically and socially disadvantaged suffer from a range of medical conditions due to increased susceptibility to risk factors, including smoking, malnutrition, alcoholism, and illicit drug use. This increased susceptibility leads to exposure to disease-causing agents and reduced host resistance.

For the purpose of this review we used Chamberlain's classification of housing status to define four categories of homelessness. Primary homelessness includes people living on the streets or in squats. Secondary homelessness includes people living in crisis accommodation. Tertiary homelessness includes people living in boarding houses. The fourth group includes people who reside in poor quality public housing with unstable rental arrangements.

In Australia Kermode et al. reported on the health status of individuals living in crisis centres, long-term accommodation areas, squat shelters and in 'unconventional accommodation' (e.g. on the streets). All sampling (n = 384) was undertaken within a 12 kilometre radius of the Melbourne Post Office. The health status of these individuals was found to be poor, with 72 percent (%) of people experiencing severe medical problems, including bronchitis, asthma and gastroenteritis. In addition 44% had experienced mental illness and 28% had injected drugs at some time during their lives.

In another Australian study, Babidge et al. studied mortality rates in a cohort of 708 homeless individuals residing in inner Sydney. Eighty-three (12%) people had died over the ten-year period of the study. It was concluded that homeless men and women died three to four times more frequently than the general population of New South Wales. Causes of death were found to be related to poor diet, excessive alcohol, cardiovascular disease and suicide.

Given these findings it is apparent that a high level of expertise within the health service industry is required to manage the complex health needs of people who are homeless. Currently, there is a lack of valid and reliable risk assessment tools to assist clinicians in identifying people at risk of homelessness and for determining strategies to improve health outcomes for homeless people.

Methodology

The literature review was conducted by a computerised search on Medline, Proquest, CINHAL, Psych Info and Web of Science between the years of 1980–2005 in English. Key words used in the search were, homeless/homelessness, health, mental illness, drug and alcohol misuse, dual diagnosis, chronic disease, medication non-adherence (non-compliance), malnutrition, violence, social isolation (exclusion), poverty, policy, access, risk screening (assessment) tool, infectious disease and cognition. In addition, the table of contents of the following journals were assessed for relevant information: American Journal of Public Health, Australian and New Zealand Journal of Public Health, Academic Emergency Medicine, Emergency Medicine, Australian Health Review and Canadian Medical Association Journal. Current reports, policy documents and unpublished documents from health organisations based in community and acute health care settings gave background to past and current strategies in health care for homeless people. A total of 780 references were reviewed. The references included studies that specifically focused on youth, women, families, indigenous groups and ED frequent presenters. Because there was no risk assessment tools for homeless people in the ED the search was extended to include risk assessment tools in the clinical setting.

Results

The literature review revealed a number of areas of importance which impacted on homeless people’s health and access to health services. Analysis of health policy revealed an increased focus on homelessness due to political interest in ED length of stay and waiting times. Homeless people were shown to be high users of ED and therefore became a focus in policy and program funding to address ED demand.

The definition and prevalence of homelessness was also identified as an issue revealing the extent of homelessness being severely underestimated. In addition, most studies limit their population to the study of homeless people who live on the streets and in temporary shelters. This approach is problematic because in reality homeless people tend to cycle through various levels of temporary poor quality accommodation, which doesn’t always include living on the streets, these people are nonetheless vulnerable to many of the same problems experienced by those living on the streets and in shelters.

In addition, the definition of frequent users of EDs has been identified in studies ranging from three to 12 visits per year with little agreement about the time interval. In an effort to review service utilisation re-presentation within 28 days after discharge (aligned with re-admission to hospital) may give a more clearly defined outcome for research.

The literature also identified key health issues more prevalent in the homeless. These health issues included:
mental health problems, cognitive impairment, drug misuse, dual diagnosis and a range of chronic diseases. Moreover, social isolation and exposure to violence were also identified as key components of the homeless experience which created a complex network of factors that entrenched people into a cycle of homelessness, poverty and social disadvantage.

Policy and health service response to homelessness

Homeless people have a higher mortality rate and present to the ED more frequently than the general population. A retrospective review of presentations to ED at St Vincent’s Hospital, Melbourne identified the top 500 most frequently presenting patients from December 1996 to March 2002. Out of those 500 patients there were 7,699 presentations to ED over the 64 months with 90 (18%) deaths. Of the 3,688 presentations within a 0700 to 2200 hrs time frame, 1,507 (40.9%) were homeless and 978 (26.5%) had a primary psychiatric or altered conscious state due to drugs and alcohol as a presenting problem.

Similarly, a qualitative study conducted in the United States of America (USA) on the ED use among the homeless and marginally housed population identified that often the ED was the only option for homeless people. These results indicated that the system lacked equity of access for this population and there were a lack of strategies to prevent ED re-presentation among this vulnerable group. The study population included 2,578 homeless persons and 1,022 (40.4%) of the population had one or more ED presentations the previous year; 199 (7.9%) presented more than three times and accounted for 1,540 (54.5%) of all visits.

Like in many jurisdictions, The Victorian Government has been under pressure to address the growing demand on public hospital services. The demand has been growing consistently at 3–4% per annum, both in Victoria and other States. Emergency department admissions are growing by 7–8% per annum in the 12 major metropolitan hospitals across Melbourne. The growth in demand has led to ambulance bypass and long waiting times of over 12 hrs in the EDs.

The utilisation of the ED by homeless people has raised their profile in health policy. Specific funding within the Hospital Admission Risk Program (HARP) initiative in 2001 has led to dedicated funding for mental illness, drug (alcohol) misuse and homeless people specifically based in EDs. Acute hospitals have historically utilised 80% of the health budget. The clinical focus needs to incorporate the complex social issues presented by a homeless person and extend funding beyond the confines of the acute setting. Fig. 1 identifies ED as a key point to utilise a risk assessment tool to assist in early recognition and referral for homeless people to break the cycle of re-presentation and perhaps homelessness.

The Commonwealth and state/territory governments have focused on the containment of public health expenditure for over ten years promoting programs that reduce reliance on acute hospitals. Successful programs, like hospital in the home (HITH) and care coordinated programs have been developed with special government funding to focus on managing and supporting patients in the community.

The HITH program has been a successful community service outreaching to the community offering acute nursing care in the home. This program has extended to the homeless population by the establishment in 1999 of an inpatient HITH service, The Cottage, at St Vincent’s Hospital. In 1988 the Royal District Nursing Service extended its role to care for homeless people and their Homeless Person Program (RDNS HPP) commenced. The RDNS HPP is a team that provides primary health care to homeless people in inner urban Melbourne advocating and linking clients with health and welfare services.

Hospital demand has raised the health profile of homelessness and has seen the Victorian Government, through health policy; implement HARP to help address health issues for the homeless. The Council for Homeless Persons, Salvation Army, St Vincent’s De Paul, and Brotherhood of St Lawrence are privately run organisations that support homeless people and struggle with the insufficient funding allocated to homelessness. The social and health issues for homeless people have been historically dealt with in isolation. The divided responsibilities by Commonwealth and

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Figure 1  Outline of HARP intervention.18
State Governments have made it difficult to address the complex needs of homeless people. The focus on more integrated services for homeless people also requires a more integrated approach from the Commonwealth and State Governments.

Defining and counting homelessness

Much debate arises in the literature concerning the meaning of homelessness and the difficulty of defining and determining the prevalence of this complex group. The definition of homelessness influences the breadth of the problem as studies that focus on only ‘people on the streets’ fail to acknowledge those in temporary accommodation and ‘at risk of homelessness’.

The literal definition of homeless means ‘roofless’ and conjures up in the community’s mind the view that people who are homeless live on the streets or squat in makeshift accommodation like derelict buildings and under bridges. The international literature mainly views homelessness within this context.

A descriptive study conducted by Chamberlain and Johnson highlights the importance of a clear definition. These investigators examined 2,840 occupants of households that asked for housing assistance. The category of secondary homelessness represented 82% of the homeless population (n = 1960) and tertiary homelessness represented 14% of the homeless population. According to these figures the major group representing homeless people were in the secondary category (crisis accommodation).

Although people who live on the streets are more obvious to recognise as homelessness the major percentage of homeless fall into the secondary category which means they have accommodation but it is a very unstable situation with poor standard of housing. This group is hard to recognise, and from a health perspective, on presentation to hospital, it is easy to overlook the complex needs of such a group. Research studies on homelessness have not explored the impact on health of the different levels of homelessness.

Defining homeless has an important implication for the identification and calculation of the problem surrounding homeless people. Policy makers and service providers need information on the extent of homelessness to enable adequate funding and allocation of resources to the most appropriate areas.

Many different methods have been employed to determine the prevalence of homeless. In the USA and Canada there are different strategies for measuring the homeless population which include: censuses and one-night counts; key-person surveys; service-based designs; and, telephone surveys. The various techniques used has led to the homeless count varying in the USA from 250,000 to 3,000,000. Hwang gives an estimate of 28,000 people in Toronto who were in shelters and he gives an overall estimate of ‘tens of thousands’ who are at risk of homelessness in Canada. The homeless population using shelters in Toronto has risen by 200% from 1990 to 1998 and in the USA the number of people experiencing homelessness has grown significantly over the last 20 years, with an estimated 500,000 in 1987 and an estimated increase of 5% annually.

The United Kingdom (UK) has between 310,000 and 380,000 single, homeless people without dependant children and 95,000 homeless families living with children in temporary accommodation. In Australia, the data from the Supported Accommodation Assistance Program (SAAP), Census of Population and Housing and the National Census of Homeless School Students are combined to calculate the total sum of Australians as homeless at 100,000. The 1996 census was the first time the Australian Government attempted to count the homeless according to the cultural definition of homelessness which refers to ‘inadequate housing’ not just ‘no roof’ and it was calculated that 105,304 people in Australia were homeless. This figure included 23,299 in boarding houses, 12,926 in SAAP, 48,500 with friends and relatives and 20,579 improvised dwellings or sleepers out.

It is interesting that despite the decline in numbers of homeless from 1996 to 2001 greater numbers of clients received daily support from SAAP in 2002–2003 (about 21,100 to 22,500 per day) than in 1996–1997 (about 13,000 to 14,000 per day). The challenge to understand the breadth of the problem of homelessness is problematic when relying on standard measures of calculating prevalence. Homelessness represents a population that does not conform to traditional behaviours and defies the ‘norm’.

In the Australian Bureau of Statistics 2000–2001 Survey of Income and Housing Costs, 11% of Australians were living in poverty; this proportion is over 1.5 million people. It is hard to understand that only 100,000 of that population are at ‘risk of homelessness’.

Risk factors of homelessness

Mental health

Although homeless people have diverse characteristics and needs, over the past 20 years surveys in the USA, UK, and Australia have indicated that between one quarter and one half of single homeless men suffer from severe or chronic mental disorder. Mental illness makes it difficult for a person to function within a structured social setting and perform basic aspects of daily life such as self-care, maintain personal relationships and manage a household. Mental illness not only is a key risk factor for someone to become homeless but also increases the social isolation and problems of engagement when delivering health care.

The prevalence of psychosis and care needs among homeless people was studied in inner Melbourne by a two-stage nested study within the Australian National Survey of People Living with Psychotic Illness. A sample of 82 men and women living in marginal housing in a mental health service catchment area tested positive when screened using the Diagnostic Interview for Psychosis. The study reported a high prevalence of people living with psychotic disorders (estimated lifetime prevalence 42%, 95% CI = 37—47%). The study reported that despite contact with well organised services few people received rehabilitation, vocational or housing support. Most people were single and unemployed and reported feeling isolated and unsafe. The study indicated a need for a more integrated model that required linking health services with welfare and housing.

According to Teesson et al., the prevalence of schizophrenia is considerably higher for homeless men (46%)
and homeless women (23%) than the general Australian population (0.5%). Mental illness is higher in the homeless male (81%) and homeless women (73%) than the general Australian population (18%).

Drug misuse
Not all people who have a drug and or alcohol problem are homeless but for those homeless people who have a drug misuse the challenges for service providers to engage and assist with treatment is made extremely difficult. Drug misuse is both a precipitating factor and a consequence of homelessness. The prevalence estimates of drug misuse among homeless people are 20—35%; and 10—20% have an additional mental health diagnosis. Because of structural and personal barriers that complicate access to health service less than one quarter of homeless people in the USA, who need treatment, actually receive it.

Research has found that homeless people are 7.5 times more likely to excessively use heroin compared to the general population, and within the older homeless population, 25% have major issues related to alcohol use. Having a concurrent diagnosis and problematic drug use adds to the increasing complexity of patient needs which homeless service systems need to address. The misuse of alcohol and illicit drugs creates a complexity when viewing homelessness, as it is difficult to define the cause and effect. There is ongoing debate regarding the connection between homelessness and drug use.

In Melbourne, Hanover Services, an independent welfare agency for homeless people, conducted a case review in 1996 on a random sample of 281 homeless clients. The study showed that 51% of clients had a drug problem. The study was repeated in 1999, and the percentage remained the same but the actual drug abuse changed. Heroin use increased by 40% that was 10 times greater than the general community. Those who use two or more drugs regularly excluding alcohol represented 37% of the population and 50% of these clients had a psychiatric disorder, mostly depression. Drug dependence has become a cause and result of homelessness and like mental illness it is often difficult to discriminate what is the cause and effect.

An Australian study that retrospectively reviewed medical records between 1996 and 2002 on repeated users of an inner city ED showed that 500 patients presented 12,940 times, an average of 26 times per patient, accounting for 8.4% of total ED presentations. Of these presentations, 1,507 (40.9%) were by people who were homeless. Nine hundred and seventy-eight (26.5%) had primary diagnosis of psychiatric or altered conscious states due to drugs and alcohol as the presenting problem.

Dual diagnosis
In the context of this study dual diagnosis refers to a person who has both a mental illness and a drug misuse problem. The misused drug could be tobacco, prescribed medication, illegal drugs or alcohol. Dual diagnosis is a complex issue because it can describe a number of co-morbidities and it can be difficult to identify the primary presenting problem. Addressing the issues for a homeless person who has a dual diagnosis is complex and with issues of fragmented service systems, housing and legal issues the treatment becomes extremely difficult.

People who are diagnosed with both severe mental illness and drug use disorders constitute 10—20% of homeless persons. The Victoria’s Drug Policy Expert Committee has estimated that 80% of the patients attending a mental health service have a drug misuse problem. There have been few studies that have explored dual diagnosis and homelessness but Kessler has completed a review of psychiatric and drug use co-morbidity between 1995 and 2004 and identified that “mental disorders lead to the onset and/or persistence of drug use disorders” and vice versa, “that drug use disorders lead to the onset and/or persistence of mental disorders.” Kessler also noted that due to methodological factors around sampling, reporting and measurement there was a risk of overestimation of co-morbidity.

Although there have been limited studies on dual diagnosis there are many studies which review mental illness and homelessness acknowledging the incidence of a drug misuse. The challenge that comes with dual diagnosis is the complexity of a mental illness compounded by a drug or alcohol dependency that complicates treatment requiring specialised health professionals to adequately treat and develop rehabilitation programs.

Social exclusion or social isolation
“Social exclusion is socially constructed by different combinations of economic, social and political processes.” Social exclusion being an important determinant of health plays a major role in the essence of what homelessness represents and how the economic, legal, political, and moral frameworks of a given society control the degree of social exclusion. Social isolation is a key factor in the health of homeless people and links the housing and health issues for homeless people. Social isolation means the lack of social networks and not belonging within a community. This network enables people to engage with services and have a fundamental sense that ‘someone cares’. Homelessness results in a greater vulnerability to ill health that defies simple interventions such as treatment with antibiotics to cure pneumonia because malnutrition and a lack of dry and warm place make it impossible to recuperate.

Social exclusion and homelessness operate in parallel, as a homeless person is unable to maintain adequate accommodation, employment and a social network. Social policy attempts to address individual issues often in isolation, unable to assist those people in most need. Within the group of homeless there are people who are unemployed, disabled, victims of violence, and those that suffer from a mental illness and or drug dependence. Social exclusion encourages a broader understanding of homelessness and leads to borderer policy initiatives like the UK Blair Government’s Social Exclusion Unit and the South Australian Government’s Social Inclusion Initiative.

Violence
Violence is not only a key aspect of the environment that surrounds the homeless population but it also represents a key risk factor for people becoming homeless. Although unemployment and affordable housing are key factors of
homelessness, violence underpins a person’s sense of safety and security which can lead to a chaotic future. The disruption of family units and family violence leads to crisis situations for many women and children forcing them to seek temporary shelter.56 Violence can become a constant threat to the health of homeless people as an ongoing health risk factor. People who live in poverty are at high risk of becoming homeless but they also include people with mental disability or post-traumatic stress syndrome, and especially those who have been through domestic violence.57

Supported Accommodation Assistance Program agencies across Australia supported 90,000 homeless clients during 1999–2000 and reported 57% of homeless women with children and 44% of homeless single women aged over 25 looked for housing assistance because of domestic violence.55 The incidence of violence has led to drug misuse and life on the streets.43 Homelessness continues the exposure to violence as the harsh reality of living in crisis accommodation, boarding houses and make shift shelters places people at risk of further attacks, robbery, sexual abuse and isolation. Mental illness and drug misuse are intertwined with the violence.

Cognitive impairment
Cognitive ability is a person’s capability to perceive, conceptualise and problem solve an issue or circumstance.58 A person’s cognitive ability affects their capacity to make clear decisions and negotiate the many complex issues not only in the health care system but day-to-day living. Cognitive ability is a key risk factor in becoming homeless and although studies such as Bremner et al.59 try to measure cognitive ability it does not stand alone but becomes intertwined with other risk factors such as mental health and drug issues.

Buhrich et al.60 conducted a study in Sydney reporting on the prevalence of cognitive impairment in a cohort of 155 homeless men and 49 homeless women randomly selected from seven emergency shelters. The study used the mini mental state examination with a score of 23 or less to assess cognitive impairment. The prevalence of cognitive impairment within the subjects was 25 (10%) compared to the general adult population which is 1.7%.60 Although the numbers of the study are small, of the subjects with cognitive impairment 11 (55%) had schizophrenia and 7 (33%) had alcohol use disorder.

Homeless people often have problems in setting goals, decision making and prioritising tasks. These elements impact strongly on their ability to engage with clinicians and service providers.61

Chronic diseases
Chronic diseases include lung and colorectal cancer, asthma, coronary heart disease, chronic obstructive pulmonary disease, diabetes, arthritis, osteoporosis, chronic renal disease, oral disease, depression and stroke.62 The homeless are vulnerable due to their poor housing situation, smoking and poor nutrition, they are especially vulnerable to chronic obstructive lung disease.

The Emergency Demand Coordination Group Report63 identified the presenting symptoms of high users of the ED, which included: chest pain, unstable angina, and myocardial infarction; abdominal pain and acute appendicitis, gastroen- teritis, nausea and vomiting; viral infections; respiratory tract infections, chronic obstructive pulmonary disease, congestive heart failure and asthma. The report also identified the major diagnostic categories of frequent presenters to the ED. Anyone who presented four or more times in a year was considered a frequent presenter. The disease groups that were in this category were mental illness, drug misuse and chronic disease.

Chronic diseases in homeless people are seen as a direct result of poor housing conditions, poor nutrition and stressful living conditions.64 Homeless people are also subjected to many barriers preventing access to effective primary care.57 These barriers include a particular viewpoint where they struggle to manage competing needs of obtaining food, clothing and shelter and keeping safe so that health problems are not considered a priority. Other barriers include fragmented health care services that exist with strict timetables, appointments, prejudices and criteria that restrict access for the homeless population.

Chronic disease in Australia has a higher mortality rate for cardiovascular disease, diabetes, and renal disease among Aboriginal and Torres Strait Islander populations65 and a higher mortality rate for coronary heart disease, stroke, and chronic respiratory conditions among lower socioeconomic groups.62

Discussion
Our review of the literature reveals that few attempts have been made to develop a risk assessment tool to identify homeless people and none to identify the risk of representation. In conjunction with identifying key risk factors that impact on homeless people a mechanism in ED to assist clinical staff to implement early identification and referral is needed.

Access to health services for homeless people is influenced by many issues such as health service policies which include: admission criteria, protocols, resource allocation and models of service delivery. Individual influences include: itinerant life style, sense of powerlessness, isolation, low self-esteem, lack of motivation, depression, community attitude, lack of financial resources, lack of social support, impairment due to psychiatric disability, intellectual disability, alcohol, and related brain injury.66 Health services need to understand the difficulties faced by people who are homeless and that standard health services do not meet their needs.

The homeless population is a heterogenous group representing all ages, genders, marital status, and also includes distinctive groups such as: indigenous people, and war veterans. The barriers to services include financial, bureaucratic, and personal.30 Financial barriers in Australia include limited health care benefits such as free dental services and reduction in bulk billing for access to general practitioners. The bureaucratic barriers include long waiting times, inflexible scheduling, lack of transportation, inadequate service options (low-cost accommodation), multiple services with complicated admission criteria and identification requirements for financial assistance and medications. These barriers mean homeless people often access ED as the default service which is accessible 24 hrs a day.
Conclusion

The utilisation of ED by homeless people is not about inappropriate use but about how homeless people manage their health issues and survive a chaotic lifestyle. A life style that does not respond to organised appointments, waiting lists and waiting times with exclusion criteria. The lack of access to adequate finances, transport, and multiple health needs, poor compliance to instructions on medication and treatments reveals a very vulnerable group. Their response is mostly crisis driven, therefore early identification and referral using a risk assessment tool on presentation to the ED helps take advantage of that window of opportunity when homeless people present in crisis.

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Competing interests

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