I, Jillian J Weber, hereby submit this original work as part of the requirements for the degree of Doctor of Philosophy in Nursing Research.

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A grounded theory study of how homeless veterans manage their chronic health problems

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A Grounded Theory Study of How Homeless Veterans Manage Their Chronic Health Problems

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Abstract

Purpose: The purpose of this study was to develop theory to describe the process by which homeless veterans manage their chronic health problems and to explore the role of the emergency department, the Department of Veterans Affairs, and other community resources. In the United States, over 550,000 people will experience homelessness on any given night. Of these over 11 percent are veterans, many of whom suffer from at least one chronic disease. Homeless veterans face numerous barriers to receiving optimal healthcare and often overutilize emergency departments and underutilize primary care services.

Design: This qualitative study used grounded theory methodology with a sample of homeless veterans from one large Midwestern city in the US.

Methods: Participants included male veterans who were homeless with at least one chronic disease. Recruitment was completed at a VA Medical Center emergency department, a homeless shelter, and a soup kitchen. Audio recorded interviews were verified and then coded by a research team using line-by-line, substantive, and finally theoretical coding.

Findings: Semi-structured interviews with 34 participants resulted in a theory describing and explaining four different ways homeless veterans manage their chronic health problems amidst the competing demands of daily survival. Additionally, three categories were identified that describe homeless veterans' experiences receiving care in an emergency department.

Conclusions & Clinical Relevance: In order to end veteran homelessness, it is vital that healthcare providers and policy makers first seek understanding from the individuals living this experience. The findings from this study will help guide the future delivery of healthcare to homeless veterans including how the profession of nursing can best care and support this vulnerable population in hospitals, clinics, and across the public health sector.
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CHAPTER 1: INTRODUCTION

Homelessness in the United States is associated with poorer health status including higher rates of communicable and non-communicable diseases, multiple co-morbidities, and higher mortality rates (Schanzer, Dominguez, Shrout, & Caton, 2007). Homeless individuals also tend to overutilize emergency rooms, underutilize primary care services, and require longer lengths of stay at higher acuities as inpatients (O’Toole et al., 2010). Health becomes a compromising factor for homeless individuals because more energy is expended on satisfying basic human needs such as food, shelter, and safety. Only when these survival requirements are fulfilled are homeless individuals able to focus on other issues, such as their health (McCormack & MacIntosh, 2001).

Homelessness and Veterans

Homeless veterans in the United States are at an even greater risk of health disparities than non-veterans because of their overrepresentation in the homeless population (Fargo et al., 2012). According to the Department of Veterans Affairs (2012) a homeless person is defined as an individual who lacks a fixed, regular and adequate nighttime residence or an individual whose primary nighttime residence is a shelter providing temporary living accommodations, an institution providing temporary residence, or a place not ordinarily used for sleeping accommodations by human beings. A veteran is defined as a person who has served in active military duty and was not dishonorably discharged (Perl, 2012).

There are around 22 million veterans currently living in the United States and in 2010 it is estimated that at any point in time (point prevalence) over 76,000 were homeless (US Department of Housing and Urban Development & US Department of Veterans Affairs ([HUD & VA], 2010). In contrast, the total population of the United States is over 308 million and at any
point in time 650,000 non-veterans were homeless in 2010 (U.S. Department of Housing and Urban Development, 2010). Additionally, it is reported that 144,000 veterans experienced homelessness at least one night during 2010 and that 53% of them suffer from some chronic health condition (Fargo et al., 2012). Men make 90.2% of the homeless veteran population nationally while women only comprise 9.8% (Pearl, 2013). Two percent of the homeless veteran population in the United States is located in the state of Ohio (HUD & VA, 2010).

Homeless veterans represent a crisis for society because of their higher representation in the homeless population in comparison to non-veterans. At any point Veterans represent 11% of the adult homeless population compared to 8% of non-veterans (Pearl, 2012 & 2015). According to a study completed with Vietnam era veterans (Rosenheck & Fontana, 1994) there are typically four post-military reasons why veterans experience homelessness more often. These include low levels of social support upon returning home, psychiatric disorders, substance abuse disorders, and being unmarried. Of these factors, the highest risk for homelessness was found among those individuals who lacked social support and were isolated.

These four identified risk factors create further difficulty for a veteran attempting to transition from military to civilian life and maintain an adequate quality of life. There is a significant lack of understanding from their non-military social counterparts regarding a Veteran’s military experiences. Often there is no support present or support is lost upon return home (Nyamathi, 2003). Many young veterans from the current war in Iraq and Afghanistan come from low-income families that lack the resources to provide an economically stable life, some come from families with a history of abuse and, therefore, the military was seen as a way out of that situation. Psychiatric disorders such as depression, posttraumatic stress disorder (PTSD), and bipolar disorder along with drug and alcohol abuse that may have been exacerbated
or come from military service can cause difficulty in maintaining not only employment for veterans but also positive social and personal relationships. Additionally, veterans often have extremely specialized military training that may not translate to the civilian workforce and can cause difficulty when searching for employment or conveying their skills to potential employers (Nyamathi, 2003).

In order to support the veterans who are homeless in the United States the current administration announced a plan to end homelessness among veterans by 2015 (U.S. Interagency Council on Homelessness, 2010). The plan outlines six focus areas for the VA to focus on including: education and outreach, treatment, prevention, housing and supportive services, employment and benefits, and community partnerships (Pearl, 2013). This comprehensive plan further highlights the need to address national homelessness among the veteran population and make positive contributions to reduce this phenomenon.

**Homeless Veterans and Chronic Health Problems**

Homeless persons face numerous barriers to receiving optimal health care. Not only do they suffer from high rates of acute and chronic medical illness but also the rates of mental illness and substance abuse are high among this population and often contribute to their unhoused situation (Baggett, O’Connell, Singer, & Rigotti, 2010). Veterans in the United States suffer from even higher rates of chronic disease and co-morbidities than their non-veteran counterparts (Goldstein, Luther, Jacoby, & Haas, 2008). Chronic physical and mental disorders experienced by homeless veterans are heterogeneous and do not necessarily fit any defined health framework. Their complex pattern of health can be broken down into components of both chronic medical and psychiatric health problems.
Medical problems experienced by homeless veterans include, but are not limited to diabetes, hypertension, cancer, emphysema, and heart disease (Goldstein, Luther, Haas, Appelt, & Gordon, 2010; Ropers & Boyer, 1987). Psychiatric problems include but are not limited to bipolar disorder, post-traumatic stress disorder, schizophrenia, and substance abuse disorders (Goldstein et al., 2010; Tsai, Mares, & Rosenheck, 2012). Other illnesses such as ulcers, frostbite, and malnutrition can be attributed to the general aspects of homelessness and exposure to the elements. Given the large number of homeless veterans there is a significant challenge to healthcare professionals and the general public health domain to address the multidimensional and complex needs associated with this population.

Not only do the homeless have more complex health care needs but they also have higher hospitalization rates and emergency department visits than the general population. Homeless individuals also tend to stay in the hospital as inpatients longer and at a greater cost than both the general population and impoverished populations (Adams, Rosenheck, Gee, Seibyl, & Kushel, 2007). Additionally, the age adjusted mortality rate for these individuals is four times higher than the general population, which can be attributed to their lack of housing, poor access to care, exposure to elements, unsafe living conditions, and delays in treatment (Hibbs et al., 1994). Further, it has been determined that members of this population are hospitalized at a younger age than their housed counterparts and suffer earlier from medical conditions that often result from their social and economic situation (Adams et al., 2007). Since veterans are disproportionately represented in the homeless sample there is a greater burden of treatment and cost placed on communities and the United States Department of Veterans Affairs (VA) medical system.

**Homeless Veterans and Emergency Department Utilization**
When examining factors associated with chronic emergency department usage, homelessness is one of the most common characteristics found (Mandelberg, Kuhn, & Kohn, 2000). Homeless persons often seek care in emergency rooms for conditions that could be treated through other outpatient or primary care services as a result of their lack of knowledge related to available and more appropriate resources (Parker & Dykema, 2013). Individuals who are homeless often seek care at hospitals by way of ambulance, lack adequate medical insurance, have poorer outcomes, and create higher economic costs for the service provider (Chambers et al., 2013; Ku, Scott, Kertesz, & Pitts, 2010). They are also more than three times likely to have repeated emergency department visits (Chambers et al., 2013). This overutilization of emergency departments by individuals who are homeless contributes to further overcrowding, decreases continuity of care, and compromises patient safety and the general health of the public (Trzeciak & Rivers, 2003). United States veterans who are homeless face an even greater risk of health disparities than other homeless subpopulations because of their overrepresentation in the homeless population (Fargo et al., 2012).

**The United States Department of Veterans Affairs**

Homeless veterans are at a greater advantage in obtaining health care than their non-veteran counterparts because of the amount of federal resources available to those who served. The Department of Veterans Affairs (VA) has a healthcare system, Veterans Health Administration (VHA), which consists of twenty-one Veterans Integrated Service Networks (VISNs). These VISNs are based on a geographical pattern that works to maximize patients’ access to care and improve the efficiency of that care (Wilson & Kizer, 1997). A typical network consists of an often multi-state region with six to ten hospitals, twenty to thirty community based outpatient clinics, nine to ten re-adjustment counseling centers, six to eight home based primary
care programs, five to seven VA nursing homes, and one or more residential housing facilities. VA headquarters in Washington D.C. sets goals for each VISN where strategies are designed to maximize health care for the veterans throughout the nation.

The VA also provides multiple programs to assist homeless veterans with care and services. These five programs include Housing and Urban Development-Veterans Affairs (HUD-VA) program, the Grant and Per Diem program, the Healthcare for Re-entry Veterans program, the Veterans Justice Outreach program, and the Domiciliary Care for Homeless Veterans program (Tsai, Kasprow, & Rosenheck, 2013). The HUD-VA supportive housing program offers homeless veterans vouchers to help subsidize their rent and VA case management services to obtain permanent housing. The Grant and Per Diem program helps to fund community agencies that provide transitional housing for homeless veterans so they may achieve stability and successfully reintegrate into society. The Healthcare for Re-Entry Veterans program provides incarcerated veterans who will soon be re-entering society with support and VA health services. The Veterans Justice Outreach program provides support to those veterans with recent involvement in the justice system by providing case management services, outreach and acting as a liaison between the veteran and the justice system. Finally, the Domiciliary Care for Homeless Veterans program provides medical, psychiatric, and substance abuse treatment services on VA grounds while also providing time-limited residential rehabilitation (Tsai et al., 2013). However, it is estimated that only 10-20% of veterans actually use the VA services that are available (Agha, Lofgren, VanRuiswyk, & Layde, 2000; Goldstein, Luther, Jacoby, Haas, & Gordon, 2008; Nyamathi et al., 2004). This lack of accessing federal services among veterans creates a large gap of knowledge in how homeless veterans manage their healthcare and requires a look at what barriers cause this to occur.
The current climate within the VA system may also cause present and future homeless veterans, and other subpopulations of veterans, to stray from accessing the VA system for medical care and benefits. The initial eruption of the VA system occurred at the Phoenix, Arizona VA where health clinics were using inappropriate scheduling techniques and thereby diminished quality of care and timely access to care for veterans. Veterans ended up waiting for months for an appointment rather then the VA designated 14 to 30 days (Zezima, 2014). The negative, highly publicized, VA information may also contribute to returning soldiers’ lack of trust in the federal system and create further difficulties for those that follow a route into homelessness. At this time, the VA Inspector General continues to investigate VA Medical Centers across the United States.

**Barriers to Health Care**

Overall barriers to accessing medical care for the homeless can be divided into two different categories including patient-related and institutional-related. One of the most significant and common patient-related barriers for the homeless population in general is the main priority placed on finding the basic essentials of food, shelter, and safety. The need for those important resources supersedes the need for health care services among all homeless populations (Chwastiak, Tsai, & Rosenheck, 2012). Homeless individuals also report that an added patient-related barrier is a lack of affordable health care. The majority of homeless individuals lack health insurance which leads to limited or no preventive care services and thus increased delays in treatment. With the implementation of the Affordable Care Act individuals who are homeless may be presented with better health service options. However, this also adds an additional barrier for the homeless by requiring them to complete the registration process and potentially pay a
small fee for coverage (Tsai & Rosenheck, 2014). Those needing emergent care may seek help in emergency departments but no continuity of care is in place.

One noteworthy institutional-related barrier is service fragmentation. This involves providing services to the homeless without system wide coordination. Services may be available at various locations and separate admission sites causing increased confusion for the homeless person (Blue-Howells, McGuire, & Nakashima, 2008). Having multiple care providers in an institution can make it difficult and often embarrassing for the homeless to attempt to coordinate their own services and explain their lifestyle multiple times. There is a general stigma about treating individuals experiencing homelessness and some providers may not be sympathetic to their situation. Transportation to and from a health care institution is an additional barrier for the homeless that may not be considered by an institution in regards to scheduling times and service provisions (Nyamathi et al., 2003).

The barriers discussed above for the general homeless population can also be applicable to homeless veterans. Other barriers that veterans may deal with include a complicated eligibility process that determines what benefits the veteran is entitled to, fear of the government, finances, and perception (Blue-Howells et al., 2008). Before entering into the VA healthcare system veterans have to complete a multitude of eligibility forms and then go through a benefits allocation process to determine their compensation and pension (C&P) award. C&P determines what physical or mental conditions the veteran is eligible to receive benefits for as related to their military service termed, service connection, and the degree of reimbursement (i.e. health care coverage) for each condition. For example, if a veteran sustained a leg injury while in service they may be eligible for 100% VA medical care for that disability. This process and delivery of services at the VA in general can be very convoluted and cause great difficulty for veterans to
navigate. Therefore, veterans may see the VA service delivery system as an increased stressor rather than a benefit.

Veterans may also have a general untrustworthiness of the government from their experience in the military and may choose not to become involved with the system. In addition, there is a common misconception that all healthcare at the VA is free for veterans but this is not necessarily true. Services may still require co-pays and be billable depending on veterans’ eligibility status and insurance. Finally, a veteran’s own perception of their health can influence their capacity to access care. Utilizing healthcare services can be perceived as a weakness, which is sharply contrasted with their military way of life in which they are perceived as strong (Gilliss, 2010).

Ways to Improve Health of Homeless Veterans

Various research studies have been undertaken about ways to improve the healthcare management of homeless veterans. Two noteworthy recommendations include using a comprehensive integrative approach to medical and psychiatric treatment and combining resources in one geographical location (Goldstein et al., 2008; O’Toole et al., 2010 & 2011; Blue-Howells et al., 2008; & McGuire et al., 2009). By providing a comprehensive approach to care more services can be tailored to the population’s specific needs and increase timeliness and efficiency of care (Goldstein et al., 2008). Additionally, the use of all-inclusive services, such as primary care, provides a more cost efficient way for veterans to manage their chronic diseases and increases their own engagement in their health (O’Toole et al., 2010 & 2011). Also, the colocation of services increases a patient’s access to care, reduces emergency room visits, and provides more timely services (Blue-Howells et al., 2008 & McGuire et al., 2009).
Although, these recommendations are significant, the majority of homeless veterans, and homeless persons in general, are not treated in any of these ideal comprehensive healthcare systems (O’Toole et al, 2010). Additionally, because of veterans’ previously stated lack of accessing the VA system, it can be inferred that that many homeless veterans are using fragmented services provided by shelters, community clinics, civilian hospitals, or potentially not seeking health services at all (Agha et al., 2000). Further, homeless veterans often receive care in both the community and in the VA system, which increases lack of continuity and overall effectiveness (Agha et al., 2000). Homelessness is associated with poorer health status resulting in higher rates of co-morbidities and higher mortality rates (Schanzer et al., 2007), which translates to an ever-increasing need to address homeless veterans management of their chronic health problems.

The dichotomy that exists between homelessness and management of chronic health problems can be complex and multifactorial among veterans. Because of the patient-related and institutional-related barriers previously noted, the significant lack of veterans utilizing the VA healthcare system, and the lack of availability of population based resources there is still a large gap of knowledge in how many homeless veterans manage their chronic health problems. These combined factors create multiple questions about the life and experience of a homeless veteran living with a chronic disease.

The Study

The overall purpose of this grounded theory study was to develop theory to describe and explain how homeless veterans manage their chronic health problems. The specific aims of the study were:
1. To identify the basic psychosocial processes used by homeless veterans to manage their chronic health problems.

2. To develop theory that describes, explains and predicts how homeless veterans manage their chronic health problems.

3. To explore the role of the emergency department, the Department of Veterans Affairs, and community-based resources in managing the chronic health problems of homeless veterans.

The research project was innovative in that the results provide a better understanding of the process that homeless veterans undergo to manage their chronic health problems from their unique first-person perspective. Knowledge discovered from the study can inform the design of services to enhance chronic disease care of homeless veterans, reduce or prevent negative disease-related health outcomes, and contribute to the current United States administrations goal of ending chronic and veteran homelessness.

**Assumptions and Definitions**

**Assumptions**

The principal investigator operated the study under the following assumptions:

1. Being homeless is not a desirable housing status

2. Homelessness produces overall negative outcomes

3. Chronic health problems generally last longer than three months

4. The verbal declaration of veteran status by participants will be used for inclusion

**Definitions**
1. Homeless: Lacking a fixed, regular and adequate nighttime residence or one whose primary residence is temporary or a place not ordinarily used for sleeping by human beings

2. Chronically homeless: Those who are continually homeless for a period of one year or have four or more episodes of homelessness over a three-year period

3. Veteran: A person who has served in active military duty and not dishonorably discharged

4. Chronic health problem: A health related problem that is persistent in nature and generally produces long lasting effects

5. United States Department of Veterans Affairs: A government run military benefit system that provides integrated health care, financial benefits and burial and memorial services to service members, veterans, their dependents, and survivors

6. Community-based resources: Resources found in a non-VA setting that provide comprehensive services such as social, medical, and mental health care.
CHAPTER 2: REVIEW OF THE LITERATURE

The aim of this study was to examine the psychosocial factors that influence how homeless veterans manage their chronic health problems. The purpose of this chapter is to provide a comprehensive review and analysis of the current state of the science in order to provide support for the study. The review of the literature will consist of a general assessment of homelessness in the United States including the history, definition, patterns, risk factors, population, and health status of the homeless; a close examination of the subpopulation of homeless veterans, along with their health and chronic diseases, emergency department utilization, barriers to care, and ways to improve healthcare. The chapter concludes with a discussion of the identified gaps in the literature justifying the need for the study.

Homelessness

History of homelessness

The evolutionary pattern and classification of homelessness in the United States has had a propensity to follow historical social and political movements. Before the Great Depression of the 1930s the U.S. experienced relatively low levels of homelessness due in large part to the Industrial Revolution (1820-1870), the Civil War (1861-1865), and then World War I (1914-1918) (Lee, Tyler, & Wright, 2010). However, with the onset of the Great Depression, and then in post-WWII there was a reduced need for unskilled laborers and a lack of affordable housing, which contributed to an increase in the homeless population. During this time period (1940-1970s), the term “skid row” became synonymous with a geographical area housing single men who moved frequently from inexpensive hotels and lodging houses, drank often, and had limited or no social ties (Lee et al., 2010). From the 1980s onward, homelessness has become a growing phenomenon. Public awareness of the issue has recently been amplified due to the latest
economic downturn and the increase in physical visibility of this vulnerable population through multiple media outlets. Ultimately, this has sparked national and community responses by promoting action and advocacy towards bringing the phenomenon of homelessness to the forefront.

**Homelessness defined**

Various government organizations and stakeholders define homelessness differently. Universally, the contemporary view of being homeless has to do with housing status and is linked to a state of extreme poverty. The United States Department of Health and Human Services (HHS) defines homelessness more broadly as an individual who lacks housing or whose primary residence during the night is a facility that provides temporary living arrangements. A homeless person may live on the streets or in any other non-permanent situation (i.e. car, abandoned building). HHS also considers those to be homeless who are unable to maintain their own housing situation and may be forced to live “doubled-up” with family or friends (National Healthcare for the Homeless Council, 2014).

The United States Department of Housing and Urban Development (HUD) approaches homelessness from a more limited viewpoint by defining it as individuals who lack a fixed, regular, and adequate nighttime residence or whose primary residence is a place not ordinarily used for routine sleeping accommodations for human beings. This definition also includes those residing in shelters, those who will imminently lose their housing with no other residence to go to, and unaccompanied youth and families with children who have not lived an extended period in permanent housing (National Healthcare for the Homeless Council, 2014). HUD’s definition of homelessness does not include those who are “doubled-up”.

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The United States Department of Veteran Affairs (VA) defines homelessness very similarly to HUD by including those who lack a fixed, regular, and adequate nighttime residence. Also included are those individuals whose primary nighttime residence is a shelter providing temporary living accommodations, an institution providing temporary residence, or a place not ordinarily used for sleeping accommodations by human beings (VA, 2012). Like HUD, the VA does not include those who are “doubled-up” in their definition of homelessness. Health centers and organizations funded by any of the previously mentioned government organizations or others will generally utilize the HUD definition of homelessness.

**Patterns of homelessness**

Homelessness exists in various dimensions meaning that not all people who are homeless can be grouped into the same category or cluster. Patterns of homelessness fall into three different typologies according to Kuhn and Culhane (1998) who used cluster analysis to group homeless shelter users in New York City and Philadelphia. The three identified typologies include the transitionally homeless, episodically homeless, and chronically homeless. The transitionally homeless are often in a temporary situation where they are classified as homeless only for a brief period of time while in between stable housing situations. Those who experience a period of transitional homelessness often only do so for one stay in the shelter system and for a very short period. These individuals are more likely to be younger, less likely to have mental health, substance abuse or medical problems, and generally do not return to homelessness after making the transition to permanent housing. The transitional group tends to account for the majority of the individuals experiencing homelessness (Kuhn & Culhane, 1998).

Episodically classified homeless individuals cycle in and out of homelessness in between short periods of housing stability. These individuals are also more likely to be younger like the
transitionally homeless, but are more likely to have mental health, substance abuse, and medical problems. They are characterized as having multiple episodes of short stays in the shelter system and account for a smaller percentage of the homeless (Kuhn & Culhane, 1998). This could include those low skilled laborers who may only be able to obtain seasonal or part time work or those who spend periods of time in jails, hospitals, or other centers.

Finally, those that are chronically homeless generally live without a residence on a permanent basis (Kuhn & Culhane, 1998; Lee et al., 2010). They are more likely to be older in age, having higher levels of mental health, substance abuse and medical problems, and are characterized as the chronically unemployed. They make up a smaller percentage of the homeless population, have fewer episodes of shelter use than the episodic, but use the most shelter days, signifying their stays last much longer than other clients (Kuhn & Culhane, 1998).

**Antecedents of homelessness**

The lack of a permanent residence, or homelessness, is generally caused by the inability of persons to pay for housing. Multiple factors contribute to this inability to pay including both economic and personal. Lee and colleagues (2010) classify the causes of homelessness into macro and micro level proceeding factors. Macro level causes create a broader view that include the overall economic conditions of the country including a decrease in the median household income, rates of unemployment, lack of fair market housing or an increase in fair market rent, and policy shifts that decrease spending on public assistance (National Alliance to End Homelessness, 2013). Other macro level risk factors could be contributed to environmental causes such as natural (i.e. tornado, hurricane) or man-made disasters (i.e. war) that could force people into a state of homelessness. Micro level factors include those occurring at the individual or family level such as lack of education leading to low skilled labor, physical and/or mental
health status, and difficult family situation such as those who come from foster care, experience domestic violence or incarceration (Lee et al., 2010).

A study conducted by Shelton, Taylor, Bonner, and van den Bree (2009) looked at risk factors for homelessness in a young adult population in order to evaluate the factors associated with a lifetime of homelessness. By interviewing young adults six years after they had previously enrolled in a national study of adolescent health the authors were able to determine significant differences between those young adults who had experienced homelessness and those who had not. Findings showed that elevated levels of parental-caregiver abuse, neglect, violence and crime, mental illness, out of home placement as a minor, drug abuse, and academic underachievement are strong indicators of future and present homelessness (Shelton et al., 2009). Overall, socioeconomic disadvantage remained a key link to homelessness in both childhood and adulthood.

**The homeless population**

The United States national rate of homelessness in 2012 was 20 per 100,000 people (National Alliance to End Homelessness, 2013). However, the overall population of homeless can be broken down into various subpopulations. More distinct organization of the homeless allows for better capability to advocate for those who need services and support. The most common picture of the homeless is the lone individual who resides on the street or park bench. However, according to the National Alliance to End Homelessness (2013), homelessness among women and children is on the rise along with family households as a whole (i.e. husband, wife and children). Additionally, a larger percentage of the homeless are sheltered rather than unsheltered. Being classified as sheltered includes emergency shelters, transitional housing programs, or a safe haven such as a drop-in center or mission (National Alliance to End
Homelessness, 2013). Another major subpopulation of the homeless includes veterans who have served in the military. This particular subpopulation will be closely examined in the latter part of this chapter, as they are the homeless population of focus for this proposed study.

**Health status and utilization of services among the homeless**

It is commonly known that those who are homeless in the United States feel the burden of disease more heavily than other populations. They experience higher mortality rates (Schanzer et al., 2007), have higher rates of acute and chronic medical illness, have greater unmet health needs (Baggett et al., 2010), and have higher rates of emergency visits and acute hospitals stays at a greater cost (Kushel, Vittinghoff, & Haas, 2001). Without stable housing the homeless are exposed to the natural elements, become victims or participants in crime, and receive almost no or very minimal preventive healthcare services, (O’Toole, Gibbon, Hanusa, & Fine, 1999) which all contributes to their poor health status. The significant linkage between lack of housing and poor health creates an extremely precarious situation in that when an individual has stable housing it could lead to an improvement in their health and overall quality of life.

To better understand the correlation between housing and health status Schanzer et al. (2007) conducted a study to describe the health status and healthcare use of new individuals residing in a homeless shelter over an eighteen-month period. The researchers looked at the participants’ baseline health status upon entering the shelter system (i.e. newly homeless) and their health status 18 months later. Rates of high blood pressure significantly decreased in those who found housing during the study period and overall, those participants that found housing showed the most positive changes in health status. Additionally, by looking at health service utilization patterns of the homeless over a 6-month period O’Toole et al. (1999) were able to
determine that by improving the structure and stability of a homeless person’s housing status then it could lead to a decrease in use of health services for acute and episodic care.

As previously stated, mental health, substance abuse, and medical problems are strongly associated with episodic and chronic patterns of homelessness (Kuhn & Culhane, 1998). When experiencing multiple co-morbidities homeless individuals therefore need to access healthcare at a higher rate than the general population to meet their needs. However, a study by Baggett et al. (2010) reported that over two-thirds of homeless respondents to a survey reported that they had at least one unmet health need in the previous year. The researchers examined the prevalence and predictors of past-year unmet healthcare needs among 5 types of healthcare services for the homeless by using data from the National Health Care for the Homeless User Survey. The five types of health services include: medical or surgical care, prescription medications, mental health care, eyeglasses, and dental care. The authors found that significant predictors of these unmet healthcare needs include food insufficiency, out of home placement as a minor, and lack of health insurance (Baggett et al., 2010).

With unmet healthcare needs and lack of health insurance, homeless individuals are often left to utilize emergency departments rather than ambulatory or primary care services for their health needs (Chwastiak et al., 2012). This comes at a greater cost to healthcare facilities and the public as a whole. By describing the factors associated with healthcare usage of homeless persons through a descriptive secondary data analysis of national survey data. Kushel et al. (2001) were able to determine that there is an association between insurance status and the increased use of ambulatory care services. Therefore, the lack of medical insurance among this group increases their use of high cost acute hospital based care and decreases their overall access to services.
Additionally, homeless individuals more often have negative experiences when attempting to access healthcare services than the general population. These negative experiences can further contribute to their poor health outcomes by ultimately pushing them away from healthcare services because of poor treatment. Kertesz et al. (2013) looked to better understand if the needs of the homeless were more favorably met if they received healthcare services in a delivery program that was specifically tailored to the homeless population. They found that the patient-clinician relationship and perceptions of cooperation among the health care providers were highest when the tailoring to the homeless was most evident. On the whole, higher levels of population approach tailoring were associated with better experiences and outcomes for the patients (i.e. homeless patients in this study) (Kertesz et al., 2013).

Overall, it can be determined that the health status of the general homeless population in the United States is poorer and more health needs go unmet compared to those who are housed. Additionally, there are multiple macro and micro factors that contribute to their homeless state that occur not only during adulthood but childhood as well. However, since the proposed research study focuses specifically on the subpopulation of homeless veterans a closer examination is now needed.

**Homeless Veterans and Health**

**Homeless veterans**

A homeless veteran can be defined as a person who lacks a fixed, regular, and adequate nighttime residence, someone who has served in the active military, air or naval service, and who was not dishonorably discharged (VA, 2012 & Perl, 2013). Because of their veteran status this population has access to more personal resources than other homeless men, are better educated, and are more likely to be working for pay than homeless non-veterans (Tessler, Rosenheck, &
Gamache, 2002; Tsai, Mares, & Rosenheck, 2012). However, they still account for 11% of the adult homeless population according to 2015 point-in-time estimates (Pearl, 2015). Rates of homelessness have remained consistently higher in veteran populations than non-veteran populations. Fargo et al. (2012) found that veteran status, older age, and black race were all significantly and independently associated with risk of homelessness among men and women. Additionally, male veterans were almost 50% as likely to be homeless as non-veterans in the general population (Fargo et al., 2012).

The antecedents of homelessness previously discussed that exist for the general population also apply to veterans. However, because of their military experience and specialized training, additional factors are present. In a landmark study conducted by Rosenheck and Fontana (1994), four reasons for homelessness among veterans occur: low levels of social support, psychiatric disorders, substance abuse disorders, and being unmarried. Social isolation and lack of social support after returning to civilian life are two of the most significant proceeding indicators (Nyamathi, 2003; Rosenheck & Fontana, 1994). Also, their extremely specialized military training may not translate into the civilian workforce and further solidify their unemployment status (Nyamathi, 2003).

**Health status and utilization of health services among homeless veterans**

Veterans not only have to contend with more social issues that contribute to their homeless position than non-veterans but also with a complex health status with multiple physical and mental health co-morbidities. According to a study by Agha, Lofgren, VanRuiswyk, and Layde (2000) veterans are more likely to have poor health status and to have more diagnosed medical conditions than the general population. When comparing homeless male veterans to homeless male non-veterans there are still significant differences in health status. O’Toole,
Conde-Martel, Gibbon, Hanus, and Fine (2003) conducted a study to describe the characteristics, comorbid conditions, and usual sources of care among homeless male veterans and non-veterans. The researchers found that homeless male veterans were significantly more likely to report a chronic medical condition, two or more mental health conditions, and less likely to access community health centers for care. PTSD and hepatitis/cirrhosis were also reported at higher rates among homeless veterans than homeless non-veterans (O’Toole et al., 2003).

Focusing more on the veteran population, Adams, Rosenheck, Gee, Seigyl, and Kushel (2007) sought to determine if there was a difference in health status and health service utilization between homeless and non-homeless veterans. The researchers conducted a retrospective, cross-sectional secondary data analysis of inpatient veterans who were hospitalized at Veterans Affairs Medical Centers (VAMCs) on days that an annual housing census was conducted. Study results showed that the homeless veterans were younger and more often had a discharge diagnosis of substance abuse or psychiatric disorder than the housed inpatient veterans (Adams et al., 2007).

Another study comparing the health of homeless veterans with non-homeless veterans compared homeless emergency department users with non-homeless emergency department users at VA facilities (Tsai, Doran, & Rosenheck, 2013). The researchers used a cross-sectional study design to compare the two groups on sociodemographic characteristics, medical and psychiatric diagnoses, use of psychotropic medications, and other clinical characteristics. Tsai et al. (2013) found that homeless VAMC emergency department users were more likely to be younger, have hepatic disease or HIV/AIDS, and more likely to be diagnosed with a broad range of psychiatric disorders including substance abuse and schizophrenia than their non-homeless counterparts. In this particular study health insurance was not a factor in attaining care since it was conducted at a VAMC. Therefore, it can be concluded that homeless veterans are more
likely to use the emergency department, which creates an opportunity for providing specialized services and comprehensive discharge planning.

As in the general population, having housing is linked with increased health status and decrease cost of healthcare services among the veteran population. In order to further investigate this claim, Montgomery, Hill, Kane, and Culhane (2013) compared two different HUD-VASH housing approaches among a group of homeless veterans. The housing first group received a case management program and prioritized immediate permanent housing for the veteran in independent apartments. The veterans were also offered access to services that included social workers, housing specialists, and healthcare providers. The standard housing group received the baseline case management model in which the homeless veteran remains at their current placement (i.e. usually shelter). The researchers found that by supporting permanent housing, not only do rates of homelessness decrease, but also associated healthcare utilization rates and cost of emergency care and inpatient hospitalizations (Montgomery et al., 2013).

Based upon the previously described research studies, we can conclude that not only do veterans have poorer health status than non-veterans, but also that homeless veterans have even poorer health status than housed veterans. Additionally, social isolation, lack of health care service utilization, and the basic lack of housing contribute to their poor health status. These factors strongly suggest the need for the proposed study in order to identify the process by which homeless veterans manage their chronic health problems and help inform strategies for supporting their health.

Homeless Veterans and Chronic Disease

Defined patterns of chronic health problems
Homeless veterans face both chronic physical and mental health disorders that are multifactorial in nature and do not necessarily fit into any defined health framework. When examining these multiple health problems, there have been attempts made to categorize identified co-morbidities into certain groups depending on their pattern of occurrence in this unique subpopulation. By making these distinct categorizations health care providers, advocates, and other stakeholders can better understand what services might be appropriate for each group and identify ways to achieve cost effective preventive care rather than retroactive treatment (i.e. inpatient hospitalizations). Three notable studies (Goldstein, Luther, Jacoby, Haas, & Gordon, 2008; Goldstein, Luther, Haas, Appelt, & Gordon, 2010; Tsai, Kasprow & Rosenheck, 2013) used cluster analysis, factor analysis, and latent class analysis in order to identify these types and patterns of medical and mental illness found in homeless veterans.

Goldstein et al. (2008) not only identified patterns of illness, but also looked to determine if risk profiles based on sociodemographic characteristics and duration of homelessness could be related to the identified illness patterns. The researchers completed a secondary analysis by using data from a previously administered interview-based questionnaire to veterans who were presently or previously homeless. The available data included 3,595 interviews conducted over a two-year period in one VISN. Homeless veterans from both urban and rural areas were included. The researchers then used cluster analysis to classify the presence or absence of twelve disorders and evaluated intergroup differences using sociodemographic characteristics. The researchers determined that four resulting clusters best fit the data including: (1) oral, dental and orthopedic disorders (dental/orthopedic problems); (2) eye problems, hypertension, cardiovascular, and gastrointestinal disorders (generalized illness); (3) hepatic and gastrointestinal disorders (hepatic disorders); and (4) hypertension with secondary elevations of cardiovascular and pulmonary
disorders (cardiopulmonary disease). Goldstein et al. (2008) determined that over 75% of the cases in each cluster also had at least one psychiatric disorder. In addition, only 18% of the study participants were actually receiving VA benefits, which provides further support for the need for better assimilation of homeless veterans into the VA system in order to reduce this phenomenon.

In another study, Goldstein et al. (2010) completed a secondary analysis on previously described data set from the national survey to determine co-morbid conditions among homeless veterans. The researchers aimed to identify the factor structure of health status of homeless veterans underlying the identified clusters and evaluate the demographic and historical data associated with each determined factor. Results showed a configuration similar to previous findings rather than the presence of single disorders among homeless veterans. The authors determined a five-factor solution: (1) cardiopulmonary disease without significant psychiatric disorder; (2) mood disorders associated with orthopedic, eye and gastrointestinal problems; (3) stress related disorders; (4) substance use or addiction disorders; and (5) psychosis. Additionally, Goldstein et al. (2010) found that married participants were more likely to score lower on the addiction factor than unmarried participants. Also, the odds of those participants who scored high on the stress factor using VA healthcare facilities were low. Once again, this indicates the need for the VA system to provide better treatment planning and care management for homeless veterans.

The final typology study used latent class analysis to identify risk and need profiles of homeless veterans and how they were referred to certain homeless service programs within the VA system. Tsai et al. (2013) examined data from the VA’s Homeless Operations Management and Evaluation System (HOMES), which was designed in response to the current administrations initiative to end veteran homelessness by 2015. This included data from 142 sites nationally and
The researchers identified four classes of risk and then compared those classes to sociodemographic characteristics among the participants. The four classes identified include: (1) relatively few problems; (2) dual diagnosis; (3) poverty, substance abuse and incarceration; and (4) disabling medical problems. The group identified as having relatively few problems was significantly younger, more likely to be female, more likely to be married, and had more years of education than the other groups. The disabling medical problems group was most likely to have a chronic medical condition, be older, and most likely to be unemployed in the past three years. The veterans categorized into the dual diagnosis group had the highest rates of substance abuse disorders, psychotic disorders, and psychiatric hospitalizations (Tsai et al, 2013). Identification of these four groups contributes to a better understanding of how homeless veterans differ from one another and what services might be the most appropriate for each group.

In each of the three studies previously discussed, researchers attempted to stratify the many physical and mental health problems that homeless veterans face into various categories or groups. Even though each study identified four or five differently named classifications, there remained significant similarities across the groups. Working to identify the complex health patterns of homeless veterans creates the need for diversity in services for homeless veterans in both the VA system and the community. Additionally, broader knowledge about common comorbid associations and a better understanding of the high correlation of substance use disorders with the majority of problems among homeless veterans will help to enhance the design and delivery of health programs. Given the large number of homeless veterans, there is a significant challenge to healthcare professionals and the general public health domain to address the multidimensional and complex needs associated with this population.

The Homeless and Emergency Department Utilization
Individuals who are homeless not only have more complex health care needs than those who are housed, but they also have higher hospitalization rates and emergency department (ED) visits than the general population. When examining factors associated with chronic emergency department usage, homelessness is one of the most common characteristics found (Mandelberg, Kuhn, & Kohn, 2000). This over utilization of emergency departments by individuals who are homeless contributes to further overcrowding, decreases continuity of care, and compromises patient safety and the general health of the public (Trzeciak & Rivers, 2003). United States veterans who are homeless are at an even greater risk of overutilization of emergency departments due to their overrepresentation in the homeless population (Fargo et al., 2012).

**Homelessness and the emergency department**

Individuals experiencing homelessness often use emergency departments as their primary source of care due to its ease and accessibility. Researchers in multiple studies have looked to identify the predicting factors of use and common characteristics of frequent emergency department users (Chambers et al., 2013; DiPietro, Kindermann, & Schenkel, 2012; Ku et al., 2010; Kushel, Perry, Bangsberg, Clark, & Moss, 2002) in order to decrease unwarranted visits and limit overcrowding. Other researchers have explored factors impacting a homeless individual’s decision to use an emergency department and what health care providers can do to provide more efficient and effective care in the emergency department (Chwastiak, Tsai, & Rosenheck, 2012; Doran et al., 2013).

Chambers et al. (2013) looked to identify predictors of frequent emergency department use among a population of homeless adults in Toronto, Canada. The researchers assessed emergency department visit rates of 1,189 homeless adults over a one-year period using administrative data. The results showed that the main factor associated with emergency
department use was being homeless for two years or more. Additionally, while frequent emergency department users represented only 10% of the sample, they represented over 60% of the total visits to the emergency department during the study period (Chambers et al., 2013). The researchers suggest improvement in care coordination and intensive case management in order to reduce emergency department visits.

In another study, DiPietro et al. (2012) documented the clinical and demographic characteristics of the twenty most frequent users of emergency departments in one urban area. This was a retrospective study based on the review of administrative data from three urban emergency departments. The sample only consisted of the top twenty of the most frequent users of those designated emergency departments. The researchers found that the most common characteristics among the top twenty users were homelessness, while having poor health was also a frequent occurrence. It is suggested that the sharing of electronic health records between various facilities would provide better care coordination among this nomadic population (DiPietro et al., 2012).

In a national study, Ku et al. (2010) sought to characterize homeless people who visit emergency departments and determine whether homelessness is the determining factor for emergency department use or if other independent factors predict usage. The researchers determined that the highest incidences of repeat emergency department visits were by the homeless and that they are more likely to arrive by ambulance than their housed counterparts. Also, the homeless emergency department users tend to be older, uninsured, and more likely to be treated for acute injury, alcohol, drug abuse, or psychiatric injury. More comprehensive discharge planning and specialized homeless programs in the emergency department may reduce recidivism rates and create more positive outcomes for homeless patients (Ku et al., 2010).
As a final point, Kushel et al. (2002) used a community-based survey in one large urban area to examine factors associated with emergency department use among the homeless and marginally housed. The sample included 2,578 participants who were able to complete a 45-minute interview using a standardized questionnaire. The researchers found that frequent emergency department users accounted for the majority of total emergency department use and almost half of the respondents used the emergency department as their only source of healthcare. Furthermore, 40% of the sample used the emergency department in the previous year, which is three times the national average (Kushel et al., 2002). Again, the researchers recommend focusing on emergency department overcrowding by focusing on recidivism among the frequent emergency department users.

Chwastiak et al. (2012) examined the reasons that homeless individuals tend to gravitate towards emergency departments for care rather than to some other type of service. The long-term goal of the study was to improve cost efficient delivery of care and reduce overcrowding. The researchers evaluated the impact of a serious mental health diagnosis on the use of a primary care services versus the use of emergency department services for care by the homeless. Data collected from a sample of 750 chronically homeless adults at eleven sites were used to determine that lack of health insurance in the previous year was the strongest predictor for emergency department use as a regular source of care. In addition, the data showed high rates of chronic medical conditions and co-occurring psychiatric and substance use disorders among the sample. The findings of the study suggest more aggressive attempts at increasing access to Medicaid for the homeless may reduce unnecessary use of expensive emergency departments and create cost savings.
Another study about emergency department care delivery to the homeless provides a unique perspective because it is based on semi-structured interviews with emergency department physician residents. Doran et al. (2013) wanted to gain insight into the multifaceted process of delivering healthcare to homeless patients in the emergency department in order to improve care delivery and reduce overutilization. This grounded theory study created three unifying themes relevant to delivering health care to the homeless: (1) medicine residents use pattern recognition to identify and treat patients who are homeless; (2) variations from standard emergency care occur when treating the homeless; and (3) navigating social care in the emergency department can be strenuous and burdensome (Doran et al., 2013). A more uniform screening and documentation process of homelessness may be beneficial in identifying the homeless and their physical health, mental health, and social needs.

All the preceding studies focusing on emergency department care to the homeless have common major themes. It was found that homelessness is a common characteristic of individuals using emergency departments and also that the frequency with which they visit emergency departments is higher than their housed counterparts. The majority of recommendations made by the authors to improve care of the homeless in the emergency department and reduce recidivism and overcrowding involve focusing on better screening tools, more aggressive case management, and collaboration of care among facilities.

**Homeless veterans and the emergency department**

Some of the previous common arguments made in regards to the homeless using emergency departments for their primary source of care are also applicable to the homeless veteran subpopulation. However, because veterans have access to more personal resources (Tessler et al., 2002) than other homeless subpopulations, and having health insurance does not
necessarily play a role in their care (VA medical system), more significance can be placed on their use of emergency departments as a primary source of care. Four studies regarding homeless veterans and emergency department care will be closely examined (Doran, Raven, & Rosenheck, 2013; Hastings et al., 2011; Tsai et al., 2013; Tsai & Rosenheck, 2013).

Doran et al. (2013) sought to determine what patient factors are most strongly associated with VA emergency department use. The researchers used data from the Veterans Health Administration (VHA) electronic record and looked at all veterans who used VHA services in the fiscal year 2010. This included 5,531,379 patients who received some type of service with close attention paid to the number of emergency department visits to any VHA facility. The study results indicated that the strongest sociodemographic correlation of emergency department use was homelessness. Specifically, homeless veterans were 6.6 times more likely to be amongst the most frequent emergency department users. Other factors strongly associated with emergency department use include schizophrenia, opioid prescription use, and heart failure (Doran et al., 2013). A common theme amongst high frequency emergency department users was psychosocial and medical vulnerability.

In a study conducted by Hastings et al. (2011), researchers identified national VAMC emergency department disposition rates, and sought to determine the frequency of repeat emergency department visits, hospitalizations, and deaths experienced by those veterans who were treated and released from a VAMC emergency department. Finally, the authors wanted to identify any factors that predict repeated emergency department visits within thirty days of discharge. In order to collect these data, a retrospective cohort study was completed using a national sample of 649,537 eligible veterans who had at least one visit to a VAMC emergency department. Results showed that homelessness was ten times higher in the sample of veterans
treated and released from emergency departments and was a predictor of repeat visits and hospitalizations. Homeless veterans also face challenges with obtaining medications, arranging outpatient and follow-up care, and securing transportation (Hastings et al., 2011). Additionally, their higher severity of illness and lack of social support places them at an increased risk of return to emergency departments. Better screening methods are needed to identify veterans at risk and ensure timely follow-up care to avoid frequent returns to the emergency department.

In order to determine the differences in sociodemographic characteristics and medical and psychiatric diagnoses between homeless and housed veterans who use VA emergency departments, Tsai et al. (2013) used a cross sectional study design to compare the two groups. The sample consisted of all veterans nationally who had used a VA emergency department in 2010. Study results showed that homeless emergency department users were younger, more likely to have liver disease, HIV/AIDS, and a broad range of diagnosed psychiatric disorders. Also, the odds of being diagnosed with a drug use disorder, schizophrenia, or adjustment disorders were more than double those of housed veterans using emergency departments (Tsai et al., 2013). Once again, social isolation along with medical and psychiatric illness plays a role in the high frequency use of emergency departments by homeless veterans.

Finally, a study by Tsai and Rosenheck (2013) compared homeless VA service users to domiciled VA service users and their rates of emergency department use along with sociodemographic and clinical characteristics over a one-year period. The researchers utilized data from the VA electronic patient record system to further break down the sample into three groups: (1) non-emergency department users; (2) moderate (1-4 visits during study period) emergency department users; and (3) frequent (more than 4 visits during study period) emergency department users. Results showed that the homeless VA users were more than seven
times likely to be frequent emergency department visitors than domiciled VA service users and overall three times as likely to use the emergency department for care than the domiciled VA service users. The largest difference between homeless emergency department VA users and non-users was the diagnosis of a chronic disorder such as liver disease and heart failure. Overall, almost half of the homeless VA service users had used the emergency department at least once during the study year period.

After reviewing studies that focus on both the homeless and homeless veterans in regards to emergency department utilization for care, it can be concluded that the general characteristic of homelessness increases the likelihood of an individual using an emergency department for healthcare, rather than some other source (i.e. ambulatory care, primary care). The initial studies regarding the homeless and emergency department use were all based on samples of homeless individuals and not the specifically identified homeless veteran population. However, from earlier research we know that even when health insurance is not a factor (Tsai et al., 2013), homeless veterans will still utilize emergency departments as a source of care rather than some other type of care service. Additionally, it is understood that veterans who are homeless may not necessarily access the VA system (Agha et al., 2000; Goldstein et al., 2008; Goldstein et al., 2010) and may instead choose to receive care in the community setting. Therefore, it can be inferred that the information examined pertaining to the general homeless population is also applicable to homeless veterans. In addition, the other studies examined that focused on homeless veterans and their use of the emergency departments for primary healthcare further support the need for better healthcare management for the homeless veteran population.

**Barriers to Health Care**
For homeless individuals healthcare can become a compromising factor. The basic human requirements of food, shelter, and safety are often placed at the forefront in regards to daily needs rather than high blood pressure medication or insulin for diabetes. However, additional patient-related and institutional-related barriers to healthcare exist for the homeless, and explicitly homeless veterans, making access to healthcare and care management that much more problematic.

**Barriers to health care for the homeless**

A major patient-related barrier to healthcare that is the most obvious and significant is the lack of basic essential needs for survival including food, shelter, and safety. Baggett et al. (2010) looked at the predictors of unmet healthcare needs among a national sample of homeless adults. Significant predictors of unmet needs included food insufficiency and lack of health insurance. The researchers also found that if employment was the sole source of income in a poverty setting, then participants often prioritized work over their health. This indicates that not only is lack of food a barrier to healthcare, but also inflexible employment which may keep an individual from receiving and financing care (i.e. no health insurance) (Baggett et al., 2010).

A major study finding by Chwastiak et al. (2012) was in agreement with the formerly discussed findings in that lack of health insurance in the preceding year was the strongest indicator of not engaging in primary care services but rather using emergency departments for care which may be costlier, inefficient, and less effective for continuity and chronic health problems. The researchers support the need for more aggressive attempts to expand the scope of health policy covering homeless and other disadvantaged populations to achieve cost saving and better continuity of care (Chwastiak et al., 2012).
Another study by Kushel et al. (2001) described factors associated with use of perceived barriers to healthcare among a national sample of homeless persons. The results indicated again that a lack of healthcare insurance is consistently associated with decreased access to healthcare services. A positive association between insurance status and increased ambulatory care services was shown to decrease barriers to care. Ultimately, the results supported the need for improving medical insurance among the homeless in order to decrease high rates of emergency department use and increase ambulatory/primary care services to improve the overall morbidity of the homeless population (Kushel et al., 2001).

An institutional-related barrier described by Kertesz et al. (2013) relates to the technique in which care is delivered to the homeless. The researchers compared homeless patients’ experiences in healthcare organizations based on their differing degree of service delivery design. A survey was used to compare patient experiences at five sites that differed in their degree to which primary care service delivery was tailored (tailored to homeless and traditional). Results showed that when tailoring care delivery to the homeless was most pronounced the patient-clinician relationship and perceptions of cooperation among providers was highest. Overall, homeless participants rated better personal experiences with service delivery when higher levels of tailoring occurred. These results indicate that personalizing care to specific populations may improve willingness to seek care and overall compliance with care provider recommendations.

Finally, a study completed by Wen, Hudak, and Hwang (2007) examined perceptions and experiences of “welcomeness” and “unwelcomeness” by homeless persons during past encounters with healthcare providers. The authors completed a qualitative analysis of in-depth interviews with homeless men and women from five different shelters in Toronto, Canada.
Respondents indicated that unwelcome experiences with a healthcare provider caused a strong emotional response that deterred them from seeking healthcare in the future. These unwelcome experiences were strongly linked with feelings of discrimination and stereotypes against them. By creating a welcoming and open environment for this particular vulnerable population there is a better chance to provide more effective care and to reach more individuals (Hwang et al., 2007).

**Barriers to health care for homeless veterans**

Not only do homeless veterans experience the same barriers to care as the general homeless population, they also face barriers related to their military experience and veteran status. A study completed by Applewhite (1997) explored the perceptions of homeless veterans about the nature and scope of homelessness and the obstacles encountered in obtaining services. The researcher used focus groups with a semi-structured interview guide to collect data. The results indicated that not only were physical health, mental health, and substance abuse problems major obstacles to overcoming homelessness, but also self-esteem problems. Veterans who experienced combat duty while serving in the military were more likely to report experiencing psychosocial and psychiatric problems that precluded them from escaping homelessness. They also felt that there was a stigma associated with being homeless in that the public blamed them for their life circumstances. Additionally, homeless veterans felt that the VA service delivery system was often confusing, insensitive, and full of bureaucratic obstacles. Ultimately, participants called for an improvement in service delivery and more services to help with reintegration into civilian life in order to become more productive and positively contributing members of society (Applewhite, 1997).
In another study, Nyamathi et al. (2004) looked at perceptions of homeless veterans as compared to homeless non-veterans in one large urban area. Data were collected as part of a larger study where a case managed health program by a nurse was compared with a standard program for homeless adults with tuberculosis. The researchers examined sociodemographic factors, personal factors, situational factors, and behavioral factors. Ultimately, they found that homeless veterans were significantly less likely to perceive their health status as fair/poor compared to non-veteran homeless men. This can be attributed to their military training and experience by not wanting to appear weak or in need of help. In addition, only about 20% of the participating veterans reported receiving veterans’ specific benefits. This report of limited VA benefit coverage by homeless veterans may reflect the convoluted process of establishing eligibility and registering for health benefits in the VA system (Nyamathi et al., 2004).

Finally, a case study by Blue-Howells, McGuire and Nakashima (2008) looked at the co-location of services for homeless veterans in one VA health care system (Greater Los Angeles) in order to reduce patient-related barriers and institution-related barriers. The investigators recognized that many homeless veterans lacked needed transportation to multiple scheduled appointments and that those appointments were scheduled at various times and on various days. A new program offered the same day co-located mental health, medical and homeless services with a coordinated intake system. After the researchers evaluated this new innovative system, continuity and rapidity of care were found to be promoted by the creation of an access center for homeless veterans that conducted screening, assessment, and referral to all services on a one-stop basis. The program reduced patient-related barriers such as transportation (one-stop service) and lack of health insurance (VA system) while also reducing institution-related barriers such as service fragmentation (coordinated intake system). The results also showed that the unique
blending of traditional primary care services with homeless care lead to quicker services for the homeless veterans and improved access to medical care, mental health, and social services (Blue-Howells et al., 2008). It also reduces the need for homeless veterans to explain their situation to multiple care providers producing feelings of weakness and discrimination.

The patient-related barriers, institutional-related barriers, and VA specific barriers to healthcare discussed above all have an effect of the healthcare management of homeless veterans. Even though homeless veterans may have access to more healthcare resources than the general homeless population because of their veteran status, many do not necessarily utilize the VA system in order to obtain healthcare services (Agha et al., 2000; Nyamathi et al., 2004). Often a homeless veteran’s own perception and experiences within the military cause the largest barrier to receiving needed care. Creating a unique health care system for homeless veterans that combines their primary care treatment with homeless care services (Blue-Howells et al., 2008) is one way to potentially reduce the various barriers to care that they face.

**Models of Care for Improving Health of Homeless Veterans**

After examining the history of homelessness, the health status of the homeless and homeless veterans, where they access care, and barriers to care, it is important to examine what research recommendations that have been made that demonstrate innovative models or programs of care to improve the health of homeless veterans. Recommendations from successful studies and programs across the United States can provide a constructive contribution to reducing this phenomenon.

One effective program for homeless veterans implemented by the Veterans Affairs Greater Los Angeles Healthcare system (GLA) was previously discussed (Blue-Howells et al., 2008). When looking at the GLA health system, services for homeless veterans were originally
offered by separate departments and in multiple buildings that were across campus from one another creating an issue with transportation and lack of coordination of services. Additionally, complex scheduling issues resulted in long wait times for veterans to receive care. To improve veterans’ access to care, the GLA modified an existing framework developed at the West Haven, CT VA to address the needs of homeless veterans. This model allows for the co-location of medical, mental health, and homeless services (i.e. housing opportunities and social services) in order to increase utilization of resources. In addition, a one-stop center was created to provide more comprehensive and timely access to services for the homeless by allowing for screenings, assessments, and referrals to take place collectively. The program has been recognized as best practice by the Veterans Health Administration and has served thousands of homeless veterans in the GLA area (Blue-Howells et al., 2008).

Two different quasi-experimental designed studies (McGuire, Gelberg, Blue-Howells, & Rosenheck, 2009; O’Toole et al., 2011) looked at new models for providing integrated healthcare to homeless veterans. The first study, by McGuire et al. (2009), investigated whether a demonstration clinic integrating homeless, primary care, and mental health services for homeless veterans with serious mental illness or substance abuse would improve medical health care access and physical health status. The researchers compared the usual VA care group with the integrated care group after the demonstration clinic opened. The pre and post integration groups were recruited from the waiting room of one homeless drop-in center. Results indicated that veterans in the integrated care group received primary care appointments quicker, had higher levels of preventive care, and lower levels of emergency department use than veterans in the traditional group. These findings suggest that an integrated model of care can improve the
quality of medical care for the homeless and particularly the homeless with serious mental illness.

The second quasi-experimental study by O’Toole et al. (2011) compared outcomes between a population based patient-centered medical home (PCMH) model of care and a traditional patient care approach. The PCMH model uses seven core principles to provide population specific care. These care principles include: patient driven, team-based, efficient, comprehensive, continuous, honest and respectful communication, and coordination across all aspects of the healthcare system (O’Toole et al., 2011). The investigators used pre and post analysis of patients enrolled in a special-population PCMH in 2008 who were previously enrolled in a traditional primary care clinic. Results showed that enrollment in a population specific PCMH can increase participant’s engagement in access to primary care and improve their chronic disease monitoring and management outcomes. By tailoring the PCMH model to the specific needs of a vulnerable population (i.e. homeless veterans) there is the potential for improvement of care and increased utilization of care resources, which improves overall health outcomes and quality of life (O’Toole et al., 2011).

Another study completed by O’Toole et al. (2010) used a retrospective cohort design to examine the difference in two groups of homeless veterans using a population tailored primary care clinic compared to a general internal medicine clinic. The researchers wanted to determine if the population-tailored approach to primary care delivery was associated with better health care outcomes for homeless veterans. Over a twelve-month time period, homeless veterans enrolled in a homeless oriented primary care (HOPC) clinic were compared to a historical sample of patients seen in the general medicine (GIM) clinic at Providence VA Medical Center. The investigators’ findings suggest that a population tailored approach to primary care services
improves access to health care, decreases medical admissions, and improves chronic disease management. Additionally, tailoring primary care specifically to homeless veterans can decrease unnecessary emergency department visits, which in turn reduces emergency department overcrowding and cost (O’Toole et al., 2010).

Another study using a population specific design to deliver primary care services was completed by Kertesz et al. (2013). Homeless patients’ experiences of care in healthcare organizations that differed in their degree of primary care design service delivery were compared. The authors used a survey to compare patient experiences at five different sites that varied in their degree of primary care services to the homeless. Results indicated that tailoring primary care service delivery to the homeless is associated with superior experience by the patients and results in improved perception and cooperation between providers and patients. Ultimately, an unfavorable experience was 1.5 to 2 times more common at the mainstream sites where no population specific tailoring occurred (Kertesz et al., 2013).

A final study by O’Toole et al. (2013) compared service use among the homeless and non-homeless veterans newly enrolled in a medical model home service delivery system during a 6-month period. The homeless veterans were enrolled in the homeless-specific patient-aligned care team while the non-homeless were enrolled in the general population patient-aligned care team. The homeless veterans were compared with non-homeless veterans in regards to their medical health, mental health, and substance abuse conditions. Initially, 48% of the homeless cohort accessed the emergency department for care. However, results showed that the homeless who utilized primary cares services were more likely to have no emergency department use in the latter 3 months of the study. By providing an alternative setting with enhanced access and a population tailored approach (homeless-specific), a reduction in expensive emergency
department visits and unmet health needs of vulnerable populations can occur (O’Toole, et al., 2013).

All six studies suggest the need for a comprehensive population-tailored approach to providing healthcare to homeless veterans. Co-locating medical care, psychiatric care, and homeless services result in improved access to healthcare and social services for homeless veterans in a more timely and efficient manner. Using an integrated primary care model provides optimal continuity of care for veterans’ multiple co-morbidities and potentially specialized situation. The majority of these recommendations are tailored to the VA system, but can also be applicable to other civilian health care systems. Since the VA is nationwide, it is able to represent our country’s diverse population and the various frameworks can simply be modified to fit the needs of other healthcare institutions. The most noteworthy recommendations to improve the health of the homeless require combining resources in one location and using a comprehensive integrated primary care approach can be generalizable across all homeless populations. Moreover, working to provide continuity of care for homeless veterans may increase their own personal engagement in their health and consequently improve their overall quality of life.

**Conclusion**

The aim of this study was to examine the psychosocial factors that influence how homeless veterans manage their chronic health problems. The homeless face numerous barriers to receiving suitable health care services. They have higher rates of physical illness, mental illness, and substance abuse. Also, they are more likely to utilize emergency rooms, be admitted to the hospital at a younger age, and have longer lengths of stay at a greater cost (O’Toole et al., 2010). All of these factors lead to a higher age-adjusted mortality rate for the homeless, (Adams
et al., 2007) which further increases the impact of the problem of homelessness on the public health domain. Since homeless veterans are overrepresented in the homeless population in the United States, they are at an even greater risk than their nonveteran counterparts (Fargo et al., 2012). Additionally, veterans suffer from higher rates of chronic disease and co-morbidities than the general population (Goldstein et al., 2008). This creates an additional burden on homeless veterans because they are competing for resources such as shelter, food, and safety while potentially battling a chronic health condition.

Homeless individuals in general experience a significant amount of unmet healthcare service needs. This includes medical or surgical care, prescription medications, mental health care, eyeglasses, and dental care (Baggett et al., 2010). However, homeless veterans have a significant advantage over their nonveteran counterparts in that they have access to the VA system. A multitude of services are available, yet many veterans choose not to access the system because of patient-related and institutional barriers. Institutional barriers are not limited to the VA system, but can also be found at civilian institutions across the United States.

In order to improve the overall health of homeless veterans, and the homeless in general, various studies were analyzed to find the best practices to move the issue forward and improve the public health framework. Noteworthy recommendations include using a more comprehensive, integrated approach to medical and psychiatric treatment, and combing resources in one geographical location. By providing a comprehensive approach to care more services can be tailored to the population’s specific needs and lead to increase timeliness and efficiency. The co-location of resources increases patient’s access and engagement in their care. These recommendations can be applicable to not only homeless veterans but are generalizable across
all homeless populations because whether they served in the military or not their need for healthcare is the same.

From the review of the literature it is understood that there are multiple ways to increase the health status of homeless veterans and improve their overall quality of life. However, since many homeless veterans are not utilizing their VA benefits, and multiple barriers to care exist, there is still a large population of veterans with poor health status who live without permanent housing on a daily basis. This study provides a better understand of the process by which homeless veterans manage their chronic health problems from their unique first-person perspective. Knowledge obtained from the study can lead to a decrease in both the financial burden and patient safety issue of overcrowding placed on emergency care areas where individuals who are homeless often seek their medical care (Trzeciak & Rivers, 2003; Kushel et al., 2002; Ku et al., 2010). According to the reviewed literature, the emergency department is not the long-term answer for treatment of chronic health problems in veterans who are homeless. The high usage of the emergency department leads to overcrowding and unsafe conditions while also increasing the financial burden placed on the hospital and community since emergency care is extremely costly (Ku et al., 2010).

Additionally, this study highlights awareness about the healthcare needs of this unique subpopulation whether it is directing and educating veterans who are homeless on alternative comprehensive services or the need for a special innovative system to reduce and prevent negative disease related outcomes. From the literature we know that comprehensive and co-located primary care services may improve overall health of veterans who are homeless (Blue-Howells et al., 2008; Kertesz et al., 2013; O’Toole et al., 2013; O’Toole et al., 2010) but that many are not utilizing these services or they are not available to them. Study results may
demonstrate better ways to influence veterans about the importance of using primary or ambulatory care services to provide them with more comprehensive care.

Furthermore, results from this study influence the need for future research on how homeless veterans manage their chronic health problems and potentially further increase a homeless person’s quality of life. By gaining a better understanding of the process by which homeless veterans manage their chronic health problems, clinicians and stakeholders can work to reduce their high mortality rates (Schanzer et al., 2007) and increase their overall health status by reducing the need to compromise their health status for other basic necessities.

Finally, since the current administration of the United States has set an initiative of ending chronic and veteran homelessness (U.S. Interagency Council on Homelessness, 2010) much needed national attention is focused on this vulnerable population. Recently, the VA secretary, Robert A. McDonald, announced that an additional $300 million in grants will be awarded to help 115,000 at risk and homeless veterans and their families as part of the eliminating veteran homelessness initiative (VA, 2014). Ultimately, this contributes to the current knowledge base about the phenomenon and significantly assists in the challenging endeavor of ending chronic and veteran homelessness.
CHAPTER 3: METHODOLOGY

The purpose of this chapter is to discuss the research method that was used to answer the qualitative research question. Grounded theory was selected as the appropriate research method to determine the process by which homeless veterans manage their chronic health problems. The historical roots of grounded theory are discussed followed by key aspects of grounded theory and how it served as the best methodology to answer the research question. Additionally, this chapter includes a description of the population under study, the inclusion and exclusion criteria, a description of the sample, data collection, and data analysis procedures.

Grounded Theory

Grounded theory is a methodology that is based on the views of two sociologists who wanted to direct attention to generating theory rather than solely theory testing and verification (Glaser & Strauss, 1967). Barney Glaser and Anselm Strauss had opposing personal philosophical views and were educated by different schools of thought. Glaser came from Columbia University while Strauss was educated at the University of Chicago. In order to create grounded theory Glaser and Strauss were able to successfully merge their philosophical traditions of positivism and pragmatism while being influenced by the philosophical idea of symbolic interactionism (Annells, 1996). Glaser and Strauss saw the need for theory that is “grounded” in the research data rather than deduced from a hypothesis and is able to explain real world phenomenon (Glaser & Strauss, 1967).

Symbolic interactionism is not only a theory of human behavior but is also about group behavior and human conduct (Annells, 1996). The term of ‘symbolic interactionism’ was coined by Herbert Blumer (1937) and emphasizes the usage of sensitizing concepts that increase significance through resulting relationship patterns (Heath & Cowley, 2004). Blumer viewed
human beings as active agents in their own lives and therefore open to social interactions that produce changes through emerging processes. As a result, human beings interact with one another and produce patterned relationships that can be constantly compared which results in a meaningful mode of inquiry (Annells, 1996; Health & Cowley, 2004).

**Variations of grounded theory**

Since the original development of grounded theory other variations have emerged. These variations mainly stem from the philosophical underpinnings of grounded theory. Classic grounded theory is considered to be the method originally developed by Glaser and Strauss and essentially follows a post-positivist philosophy that allows the researcher to remain independent of the participants in attempting to get as close to the truth as possible (Denzin & Lincoln, 2011). Straussian grounded theory is an approach that resulted from the separation of the Glaser and Strauss team and relies primarily on the philosophy of pragmatism and the researchers own personal experience in determining the area of study (Hunter, Murphy, Grealish, Casey, & Keady, 2011). Additionally, Straussian grounded theory requires an active relationship between the researcher and the participants. The most recent re-modeling of grounded theory is the constructivist approach by Kathy Charmaz (2006). This adaptation of grounded theory uses the constructivist paradigm to gain meaning and understanding from the data through the co-construction of reality by the researcher and the participants (Denzin & Lincoln, 2011).

Grounded theory requires a close relationship between data collection and data analysis to produce explanatory models of human behavior that are grounded in the data (Charmaz, 2006). Induction, deduction, and verification all take place throughout the grounded theory process in order to generate a new theory based on a particular phenomenon under study (Heath & Cowley, 2004). Grounded theory requires that the systematic collection of data, sampling, and
analysis occur simultaneously while theoretical sampling and data collection occur as the new theory emerges. The technique of comparative analysis is used to continually compare the concepts developing from the data. This action of constantly comparing the concepts allows the researcher to note similarities and differences found in the data and eventually generates categories that are able to aid in explaining the phenomenon and increase its overall generality and explanatory power (Glaser & Strauss, 1967). These verified conceptual categories are then used to generate hypotheses about the relationships that exist between the categories and indicate the direction of further data collection and analysis (Glaser & Strauss, 1967). There are various key characteristics that define the grounded theory method such as comparative analysis, theoretical sampling, theoretical saturation, theoretical memos, and theoretical sensitivity.

**Comparative analysis**

In classic Glaser and Strauss (1967) grounded theory methodology, emphasis is placed on using comparative analysis to constantly compare the developing concepts from the data. These concepts are generated from a series of facts that are found or replicated throughout the data. The constant comparison of the similarities and differences between the facts generates the categories and their properties that are able to increase explanatory power and generality (Glaser & Strauss, 1967). These verified conceptual categories and properties are then used to generate a hypothesis about the relationship(s) that exist between the categories and properties. This is one of the main reasons that the theory generated using grounded theory methodology is defined as “grounded” in the data. The emerging core categories are indicated by the resulting data and indicate the direction of further data collection and data analysis (Glaser & Strauss, 1967).

**Theoretical sampling**
Theoretical sampling is a strategy used in the grounded theory process to allow for presentation of the best cases of the phenomenon under study and creates a system of checks and balances on emerging categories. This controlled and purposive process of data collection is based on the emerging theory rather than selective sampling as initially used in grounded theory (Draucker, Martsolf, Ross, & Rusk, 2007). Participants are chosen based on their knowledge of the topic and the need of the researcher to continually verify the newly developing theory by increasing the relationships between categories and properties with the new data found by sampling not only purposefully but theoretically as well. The iterative relationship of induction and deduction can be visible through the process of theoretical sampling. The inductive process involves the actual emerging theory that is grounded in the data while the deductive process is present in the theoretical selection of samples (participants) to verify the resulting theory that is emerging from the data (Becker, 1993).

**Theoretical saturation**

Glaser and Strauss (1967) describe theoretical saturation as reaching the point of replication where no additional data are being found and therefore the properties of the category can be fully developed. Complete theoretical saturation fills in the various gaps in the theory by maximizing differences between groups and maximizing variations in the data. This is achieved through comparative analysis and theoretical sampling by using “slices of data” to provide alternative views when looking at categories and their properties (Glaser & Strauss, 1967). These differing or alternative views are continuously tested and validated in order to help to generate the properties of categories and fill in the various gaps in the theory while helping to reach saturation.

**Theoretical memos**
Another important aspect of grounded theory includes memo writing and the development of theoretical memos in order to create integration of the data and keep track of theoretical ideas (Strauss, 1987). Initial memos are written congruently with data collection and analysis and then more advanced memos are written as the categories develop. Theoretical memos are used to advance and link theoretical ideas that eventually contribute to the development of the theory (Strauss, 1987).

**Theoretical sensitivity**

Maintaining theoretical sensitivity throughout the grounded theory process allows the researcher to remain sensitive to the data and allowing the categories and properties to emerge rather than having *a priori* hypotheses or biases about potential outcomes (Glaser, 1978). Theoretical sensitivity can be increased by professional experience, immersion into the literature, and becoming familiar with common ideas about the phenomenon under study. Since grounded theory requires the systematic collection and analyzing of data, categories tend to emerge very quickly. Therefore, the constant fitting and refitting of data and widespread knowledge of the phenomenon ensures that all the data are explained and best fit in the resulting categories (Hoare, Mills & Francis, 2012). Theoretical sensitivity should be preserved throughout the entire grounded theory process in order to develop a comprehensive formal theory.

The population of veterans being addressed in this research study shared the same fundamental problem of being homeless while also suffering from some chronic health problem. This is “real world” phenomenon as described by Glaser and Strauss (1967) that can be explained by the data generated through the grounded theory research process. The aim was to determine how homeless veterans resolve the problem of disease management through a social or psychological process. The researcher used the techniques of constant comparison, theoretical
sampling, reached theoretical saturation, wrote memos, and maintained theoretical sensitivity. The method of grounded theory was a tool used to develop a theory describing and explaining the process by which veterans who are homeless manage their chronic health problems.

**Protection of Human Subjects**

This study was submitted to the institutional review board (IRB) at the University of Cincinnati and the Research and Development Committee at the Cincinnati VA Medical Center for approval of the protection of human subjects prior to any recruitment of participants or collection of data. Written consent from each participant was obtained prior to any interviews taking place.

**Sample**

The sample for this study was drawn from homeless male veterans with a diagnosed chronic health problem. Female veterans were excluded because of their extremely low representation of 9.8% in the homeless veteran population while males make up 90.2% (Pearl, 2013). Veterans from all military service periods (i.e. Vietnam, Korea, Persian Gulf, Iraq/Afghanistan) were eligible for inclusion. Key informants with extensive knowledge of the homeless such as health providers and social workers from the Department of Veterans Affairs (VA) and the surrounding community were also recruited into the study.

**Inclusion Criteria**

- Male veteran (self-disclosed)
- Homeless
- Previously diagnosed chronic health problem
- 18+ years of age

**Exclusion Criteria**
• Female veteran
• Not currently homeless as defined by VA
• Under the influence of substance that hinders ability to actively participate in the study as determined by orientation (i.e. person, place, time, situation)

Homeless veterans were recruited from within the Veterans Health Administration and from the surrounding community. Within the VA system is a system of homeless veteran supportive services that includes programs such as VA supported housing (HUD-VA), Veterans Justice Outreach, and health care for re-entry veterans (HCRV) (HUD & VA, 2010; Tsai et al., 2013). Additionally, the homeless are more likely to use emergency rooms than their housed counterparts (O’Toole et al., 2010). Therefore, homeless veterans were recruited at the Cincinnati Veterans Affairs Medical Center (VAMC) through the emergency department with the use of detailed flyers. Knowledge experts such as social workers and healthcare providers for the homeless were also recruited at the VAMC as key informants.

Since it is estimated that only 10-20% of veterans actually use VA medical services (Agha et al., 2000; Goldstein et al., 2008) and therefore potentially lack any healthcare services, participants were also recruited from the surrounding community. Homeless veterans were recruited in the community from one Cincinnati area soup kitchen that primarily serves the homeless population and one Cincinnati emergency male shelter. Knowledge experts that frequently provide social services and healthcare to the homeless in the community were recruited from the shelter.

Our Daily Bread is a soup kitchen in the Cincinnati Over-the-Rhine area that provides almost 200,000 meals annually for the poor and homeless. This particular organization has been established for over twenty-five years and also provides social services and entertainment to its
guests (Our Daily Bread). The Shelterhouse (formerly the Drop Inn Center) is the largest emergency shelter for men in Hamilton County, providing shelter and services to over 2,200 men and women (Ester Marie Hatton Center for Women) experiencing homelessness (Drop Inn Center, 2009).

**Procedures**

Participants were recruited through the use of detailed flyers hung at the Cincinnati VA Medical Center and both community locations. Additionally, the principal investigator recruited face-to-face at the soup kitchen by being present during the designated meal times and special activities. Finally, recruitment occurred at the shelter during the bimonthly veteran specific meetings. The flyers included general information about the study and necessary contact information if interested in participating. Veterans interested in participating received face-to-face informed consent by the principal investigator before any information was obtained or data collected. Purposive sampling followed by theoretical sampling was used to recruit 34 participants into the study. Four knowledge experts who provide social services and healthcare within the VA and in the community were also recruited.

**Data Collection**

Recruited participants were screened for inclusion into the grounded theory study at the Cincinnati VA Medical Center and the community locations. The principal investigator conducted the participant screenings based on the inclusion criteria. All eligible participants were consented in person and received a copy of the consent form before data collection began. Participants were asked to complete a demographic form after consent (appendix A). Semi-structured interviews were used to collect data (appendix B and C). The initial general open research question used was “how do you manage your chronic health problems?” Follow up
questions were also used to generate further data and expand upon concepts as they emerged in the grounded theory study. A digital audio recorder was used to record the interview to ensure no data were lost.

Field notes and observations served as additional data in this study. Participants were informed ahead of time about the use of note taking during the interview by the principal investigator. Field notes were used to allow the researcher to follow up with any clarifying questions and record any general impressions of the environment and/or the participant. Observations were made throughout the interviews to observe any obvious physical signs of illness, facial expressions, and body language that occurred and assisted the principal investigator and research team in analyzing the data.

**Participant Incentive**

For participation in the study homeless veterans received a $35 gift card at the conclusion of the interview. This incentive to the homeless is supported by data that states “payment in kind” to homeless research participants should be avoided because coercion with goods reduces their autonomy and they should therefore receive a monetary incentive as other research participants would (Schonfeld et al., 2003). Participants whose interviews took place at the soup kitchen also received a meal at the time of the interview since it coincided with the designated mealtime at the soup kitchen. Knowledge experts recruited into the study received a $35 gift card for their participation.

**Data Management**

After the first interview was completed, the interview was transcribed, and a number assigned to the participant. All audio taped interviews were sent to a transcription company familiar with transcription of research data to be transcribed into text for coding of the data.
Transcribed interviews were re-checked against audio recordings by the principal investigator to check for errors. All data was stored behind the protected VA firewall at the Cincinnati VA Medical Center and on the protected Research drive at the University of Cincinnati, College of Nursing. Participants’ personal information was de-identified to ensure privacy and confidentiality. Consent forms were locked in the Research and Development office at the Cincinnati VA Medical Center. Demographic forms will be entered with the beginning of each participant transcript and then scanned and destroyed. Verbatim transcripts were uploaded to MAXQDA (2015) for ease of coding and analyzing by the researcher and team. A hard copy of each de-identified transcript was kept for initial coding and then destroyed.

**Data Analysis**

The analysis of the qualitative data in this grounded theory study required an active iterative process in which the researcher moves back and forth from data collection to data analysis (Glaser & Strauss, 1967). The principal investigator and research team completed coding as described by Glaser (1978) as substantive coding initially and then theoretical coding. The basic rule in coding is that while coding a transcript for raw data to place in various categories, there must be comparison between new and previously coded data in that particular category and other categories (Glaser & Strauss, 1967).

**Substantive coding**

Substantive coding included open coding and selective coding. Open coding is the process of coding the data in all possible ways for as many categories that may fit (Glaser, 1978). Line-by-line coding was the technique used during open coding. The principal investigator and one nurse faculty member of the research team met weekly to code one interview per week for the first 4 interviews and then moved to selective coding. Selective coding is defined by the
principal investigator and the research team looking for data that fit with a list of sixteen identified core categories. Weekly team meetings continued with a discussion around the core categories of which some were collapsed and expanded upon. The principal investigator and research team moved on to theoretical coding.

**Theoretical coding**

Theoretical coding is a way to conceptualize substantive codes and describe them in a theoretical way that explains the data. Theoretical codes emerge from the data through comparative analysis and can be applicable to multiple perspectives depending on their combination (Glaser, 1978). Theoretical coding allowed the principal investigator and the research team to ask multiple questions of the data and determine the various trajectories of the data set. As the construction of the most parsimonious explanation about what was seen in the data occurred, theoretical sampling was used to obtain further data to explain the emerging theory. Theorizing involved recognizing beliefs and values in the data, examining similar concepts in various settings, inductively developing theory from the data, and formulating hypotheses about the links or experiences in the data set.

During the selective coding process, the qualitative software MAXQDA was used to assist with coding. MAXQDA is a tool to help store and sort the data. As more interviews were completed the previously described multi-step coding process was repeated for each transcript. Memos were also used throughout the study to keep track of ideas and help the principal investigator and the research team to formulate the emerging theory. They provided an outlet with no constraints to write ideas, thoughts, and potential insights into the phenomenon under study. Early memos were simple texts but became more abstract as the study unfolded. Additionally, they helped to generate further questions and hypotheses about the emerging data.
and allowed the research team to remain immersed in the data in order to continue the constant movement between data collection and data analysis (Glaser, 1978).

Finally, the last step in data analysis was recontextualization. This involved the development of a theory that is applicable in other contexts and to other populations. The ultimate goal of this grounded theory study was to develop a theory that describes and explains the process by which homeless veterans manage their chronic health problems.

**Ensuring Rigor**

Trustworthiness or validity of the qualitative study was ensured through the use of a research team including the principal investigator, faculty mentor, additional faculty member, and one nursing student. Inter-subjective agreement ensures credibility along with the use of direct quotes from participants in the research findings (Denzin & Lincoln, 2011). Transferability was ensured by the adequate description of the sample and dependability of the data can be fulfilled with the re-checking of the audiotapes against the transcripts. Additionally, confirmability was ensured in this grounded theory study by the creation of an “audit trail” through the use of memos that described theoretical decisions and ideas that came from the data (Denzin & Lincoln, 2011).

**Research Team**

The research team consisted of the principal investigator, a faculty mentor (dissertation chair) from University of Cincinnati College of Nursing, two additional committee members who are faculty from the College of Nursing and School of Social Work, and a BSN honors nursing student who is in the military.

**Protection of Human Subjects**
This study was submitted to the institutional review board (IRB) at the University of Cincinnati and the Research and Development Committee at the Cincinnati VA Medical Center for approval of the protection of human subjects prior to any recruitment of participants or collection of data. Verbal and written consent from each participant was obtained prior to any interviews taking place in a private setting at each recruitment location. In addition, participants were reminded of the voluntary nature of their participation.
References


evaluation of co-located primary care and homeless social services. *Administration, Policy and Mental Health, 36*, 255-264.


### Literature Review Tables

#### Homelessness: Background & Health Status

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<td>Baggett, O’Connell, Singer &amp; Rigotti, 2010</td>
<td>To assess the prevalence and predictors of past-year unmet needs for 5 types of health care services in a national sample of homeless adults.</td>
<td>Secondary analysis of the 2003 Health Care for the Homeless (HCH) User Survey. Nationally representative survey of individuals using clinical services provided by the federally funded HCH program.</td>
<td>3 stage sampling design. 30 HCH grantees (79 clinic sites) 33 interviews per grantee site 966 respondents age 18 or older</td>
<td>Chi square to determine unadjusted relationships b/w predictor and outcome variables. Multivariable logistic regression to determine factors independently associated with each outcome measure of unmet need among all adults.</td>
<td>Predisposing factors, enabling factors and need factors (per behavioral model for vulnerable populations)</td>
<td>73% of respondents reported at least one unmet health need: inability to obtain needed medical or surgical care, prescription medications, mental health care, eyeglasses, and dental care. Significant predictors of unmet needs include food insufficiency, out-of-home placement as a minor, vision impairment and lack of health insurance. Past year employment is associated with unmet needs for medical or surgical care and prescription medications. Confirms that when employment is sole source of income in poverty setting patients often prioritize work over health.</td>
<td>Substantial barriers for homeless adults exist in accessing multiple dimensions of health care. Health services compatible with work schedules and delivered in a flexible format will be required to best serve homeless people who rely on employment as a source of income. Incorporating vision services for the homeless into health care model may alleviate the burden of vision impairment and enhance functionality and improve access to other dimensions of care for the homeless.</td>
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<tr>
<td>Kertesz, Holt, Steward, Jones, Roth, Stringfellow, 2010</td>
<td>Compared homeless patients’ experiences of primary care to those of non-homeless patients.</td>
<td>Survey based comparison of patient experiences of primary care</td>
<td>Random sample of homeless-experienced English speaking</td>
<td>Use of Primary Care Quality-Homeless (PCQ-H) Survey previously</td>
<td>Patient-clinician relationship and perceptions of cooperation among</td>
<td>Patient-clinician relationship and perceptions of cooperation among</td>
<td>Tailored primary care service delivery is associated with superior service experience for</td>
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Gordon, Kim, Austin, Henry, Johnson, Granstaff, Golden, Young, Davis & Pollio, 2013
Comparing homeless persons’ care experiences in tailored versus non-tailored primary care programs

- Care in health care organizations that differed in their degree of primary care design service tailoring.
- Primary care at 5 federally funded sites that differed in the degree to which primary care service delivery was tailored for the homeless.
- 40-60 minute survey conducted face-to-face.
- 6371 persons met criteria.
- 2584 recruited.
- 870 successfully contacted and screened.
- 601 included in analysis.

Kuhn & Culhane, 1998
Applying cluster analysis to test a typology of homelessness by pattern of shelter utilization: results from the analysis of administrative data

- Cluster analysis used to produce three groups by number of shelter days and number of shelter episodes from administrative databases.
- Technique of nearest centroid sorting to construct unique clusters when given set number of clusters.
- Sample size, average number of episodes and average number days.

Kuhn & Culhane, 1998
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- Cluster analysis used to produce three groups by number of shelter days and number of shelter episodes from administrative databases.
- Technique of nearest centroid sorting to construct unique clusters when given set number of clusters.
- Sample size, average number of episodes and average number days.

- Cooperating among clinicians.
- Accessibility or coordination.
- Homeless-specific needs.

- Individual episodes of homelessness, age, education, gender, race, indicators for mental health, substance abuse and medical problems.

- 3 phases of analysis using chi square, ANOVA and regression.

- Cooperation among clinicians.
- Accessibility or coordination.
- Homeless-specific needs.

- Providers were highest where homelessness-tailoring was most pronounced.
- Higher levels of tailoring associated with a better experience.

- An unfavorable experience was 1.5 to 2 times more common at the mainstream VA sites compared with the tailored non-VA site.

- Three distinct clusters: Transitionally homeless.
- Episodically homeless.
- Chronically homeless.

- More evidence of substance abuse among chronic and episodic shelter users than transitonally.

- More research to better understand which aspects of service tailoring matter most and whether they can be translated across service environments for both homeless and non-homeless populations.

- Program planning for the homeless would benefit from using the typologies described to gear services to the specific type of shelter users and how their patterns of homelessness effect their daily living.
Factors associated with the health care utilization of homeless persons

Kushel, Vittinghoff & Haas, 2001

To describe factors associated with use of and perceived barriers to receipt of health care among homeless persons. Descriptive.

Secondary data analysis of the National Survey of Homeless Assistance Providers and Clients. 2874 currently homeless persons interviewed through homeless assistance programs throughout the US in Oct-Nov 1996

Bivariate relationships b/w independent variables and 5 outcome variables. Multivariate logistic models based on significant bivariate relationships and a priori data

Self-reported ambulatory care services, emergency departments and inpatient hospital services. Inability to receive necessary care. Inability to comply with prescription medication in the prior year

Homeless persons reported high rates of acute hospital based care, low rates of ambulatory care and difficulty accessing health care. Association b/w insurance status and increased use of ambulatory care and decreased barriers to care (medical insurance enables the use of ambulatory care and decreases barriers to care). Homeless persons are more likely to use EDs than the population as a whole. A look at macro and micro level causes of homelessness; examination of public, media and governmental

Having insurance is consistently associated with improved access to care.

By improving provision of medical insurance among the homeless it could significantly decrease high rates of ED use and inpatient hospitalizations and improve morbidity among the homeless.

Lee, Tyler & Wright, 2010

The new homelessness revisited

Focus on (a) conceptual questions surrounding homelessness, (b) homelessness Sociological review Homeless population N/A

N/A

Need for greater emphasis on prevention that could help strengthen research/policy agenda for homelessness.
population size, composition and distribution, (c) homeless people’s life chances, (d) coping strategies employed to meet basic needs, (e) explanations for homelessness, (f) public views and media coverage and (g) actions taken to address homelessness responses to the homeless problem; policy that has influenced homelessness in the US.

O’Toole, Gibbon, Hanusa & Fine, 1999
Utilization of health care services among subgroups of urban homeless and housed poor

To describe the health services utilization patterns of a homeless population classified by their sheltering arrangements over the previous six months.

Cross-sectional survey of homeless and housed poor adults in Allegheny county, PA

Subjects from 24 sites throughout city of Pittsburgh and Allegheny County. 399 individuals completed survey

Comparisons using chi-square test for categorical variables ANOVA used for comparisons of continuous variables

Demographic characteristics, comorbid illnesses, functional status and social support networks, reasons for homelessness and health services utilization.

Study indicates that the majority of homeless and housed-poor utilized health services during the six month period. Unsheltered are homeless longer and were less well educated and less often employed and had lower levels of social support. Resource use is associated with sheltering arrangement, comorbid conditions, race, social support and insurance status.

By improving the structure and stability of a homeless person’s sheltering status it could lead to a decrease in acute/episodic care utilization and an increase in preventative and screening care. Need for better coordination and integration of care to increase access to and utilization of treatment for drug and alcohol abuse and mental health services.

Schanzer, Dominguez, ShROUT & Canton, 2007
Homelessness, health status and health care use

Aim to describe the health status and health care use of new clients of homeless shelters and observe changes in these health indicators over the study period.

Longitudinal study. Followed individuals from entry into homeless shelter system for the next 18 months. Baseline interviews, 445 newly homeless individuals over 18 month period in NYC. Both men and women aged 18 to 65 yrs. Follow-up data collected on 351 Demographic data and info on living arrangements, homelessness hx, current housing status, education, employment, marital status, citizenship, and respondents’ reports of medical

Baseline general health status of newly homeless and follow-up health status after 18 months.

Some aspects of participants’ health status showed improvement with those who obtained housing showing more positive changes. Those that found housing had significant decrease in

Individuals who become homeless bare a heavy disease burden. Those at risk of becoming homeless contribute to the overcrowding of EDs and more than 1/3 of newly homeless use the ED as their usual source of care.
follow-up interviews and monthly telephone contacts.

participants. illnesses and insurance status. Medical Outcomes Study 36-item short form health survey used to evaluate general physical and mental health status.

rates of high blood pressure. Sample consistently had higher rates of medical illness, psychopathology (depression & anxiety) and substance use disorders than participants in similar aged general population. Persons at risk of becoming homeless also stressed health care system because they sought help for primary care (medical and psychiatric) problems in emergency departments instead of outpatient clinics or private offices.

Socioeconomic disadvantage remains a key linkage to homelessness as a child and an adult. Closer attention needs to be paid to children and adolescents in order to prevent homelessness in adulthood.

Shelton, Taylor, Bonner & van den Bree, 2009
Risk factors for homelessness: evidence from a population-based study

To evaluate relationships between well-established factors and lifetime homelessness status and the relative importance of these factors in the prediction of homelessness

Secondary data analysis derived from the National Longitudinal Study of Adolescent Health (Add Health). Computer based interviews completed in wave three 6 years after adolescents had enrolled in study.

Large representative population based sample. Primary sample included all high schools in the US with an 11th grade and at least 30 enrolled students. For this study systematic random sample of high schools selected. 134 high schools to represent region, urbanity, school type, size, and racial and

Measures of risk factors in the Add Health In-Home Adolescent Interview:
-Adversity in childhood -socioeconomic situation -mental health problem -addiction problem -criminal behavior

Having ever been homeless for a week or longer. Having stayed in a homeless shelter. Where currently living. Demographic factors.

Older age and Native American ethnicity significantly associated with homelessness. The ever-homeless group had elevated levels of parental-caregiver abuse or neglect and almost half had reported having run away or being ordered out of their parents homes. Higher rates of violence and crime in group that experienced homelessness. Childhood adversity is significantly
ethnic composition. Respondents 11-18 years of age. Total: 14,888 respondents. 682 classified as ever being homeless.

associated with homelessness among young adults along with economic disadvantage, mental illness and recent drug use. Academic underachievement and early socioeconomic difficulty related to homelessness. Drug abuse more strongly associated with homelessness than alcohol abuse.
## Homelessness & United States Veterans

<table>
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<tr>
<th>Citation</th>
<th>Research Question</th>
<th>Method</th>
<th>Sample Size/Population</th>
<th>Measurements</th>
<th>Variables of Interest</th>
<th>Significant Findings</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams, Rosenheck, Gee, Seibyl and Kushel, 2007</td>
<td>Hospitalized younger: a comparison of a national sample of homeless and housed inpatient veterans</td>
<td>Retrospective, cross sectional secondary data analysis of inpatient veterans at Veterans Affairs Medical Centers (VAMC) nationwide who were hospitalized on days that the VAMC conducted an annual housing census.</td>
<td>ICD-9 codes to identify 15 most common med-surg diagnoses. Sociodemographic factors. Use chi-square test Fischer's exact test</td>
<td>Housing status: literally homeless, double-up, institution, domiciled, unknown.</td>
<td>Homeless subjects were younger and more likely to be unmarried than housed counterparts. More homeless had a discharge diagnosis of substance abuse or psychiatric disorder than housed inpatients. The multifactorial influence of mental illness, substance abuse and chaotic social situations create a situation where homeless people are more susceptible to early morbidity, high hospitalization rates and premature death.</td>
<td>Interventions to improve the health of homeless should focus on common diagnoses that afflict the homeless population but also attention should focus on more common diagnoses that lead to hospitalizations at a younger age. More research is needed to identify better ways to overcome barriers in access to care and to identify populations at high risk for homelessness and poor health outcomes. To decrease early med-surg hospitalizations among the homeless, policy efforts should focus on chronic disease management rather than intervening once hospitalized with significant illness.</td>
<td></td>
</tr>
<tr>
<td>Agha, Lofgren, VanRuiswyk &amp; Layde, 2000</td>
<td>Are patients at veterans affairs medical centers sicker?</td>
<td>Secondary analysis of the “access to care” supplement of the national health interview survey (NHIS) for the years 1993 and 1994</td>
<td>Assessment of health status based on self-report of health status and chronic medical conditions. Self-report health status measured on Likert scale. 3 variables selected to measure medical resource use: (1) number of outpatient physician visits in the past year, (2) number of short-term care hospital admissions in the VA</td>
<td>VA veterans had the lowest level of education, were more likely to be unemployed and more likely to be poor and more likely to be poor than the general population. VA vets were 14.7</td>
<td>Findings suggest that higher resource use by VA patients is not a reflection of organizational factors or inappropriate health practices. Instead, higher resource use is an appropriate use of resources by a patient</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
hospital or clinic as their usual source of care (VA Veterans), (2) those who identified as veterans but reported a non-VA facility as their usual source of care (non-VA veterans), (3) those who identified as non-veterans (general population), (4) those unsure of either their usual source of medical care or their veteran status (unknown).

Past year, (3) number of days spent in the hospital for short-term care in the past year. Control variables: age, sex, race, educational status, annual family income, employment status times more likely to have poor health status than the general population and 14 times more likely to have 5 or more medical conditions than the general population. After controlling for confounding variables (age, sex, education, family income, and employment) VA veterans still have significantly poorer health status and more medical conditions than the general population. Those who used the VA health system as their primary source of care reported poorer health and had a greater number of medical conditions than the general population.

Veteran status Homeless vs poverty Age, race, sex Rates of homelessness were consistently higher in veteran populations than nonveteran populations. Veteran status, older age, and black race were significantly and independently associated with risk population that is older, has poorer health status and more medical conditions than the general population of patients. Investigators and policy makers should not compare VA care with non-VA care based on resource benchmarks such as number of visits or length of stay data, without accounting for differences between the VA population and the general population.

Fargo, Metraux, Byrne, Munley, Montgomery, Jones, Sheldon, Kane & Culhane, 2012

Better understanding of the dynamics of homelessness among veterans. Determining if veteran status is associated with an increased risk of homelessness and identifying whether risk of homelessness

130,554 adults received homelessness services 10,726 veterans (8.2%)

Estimated prevalence of veterans in the homeless, poverty and overall populations and calculated corresponding risk ratios (RR). Prevalence and RR computed for each age, race and sex subgroup.

Homeless veterans will likely turn to the VA for healthcare given their lack of housing and heightened susceptibility to chronic health problems. This will increase demand on the VA for long term care which will create the need for further sustainable programs that contribute to the housing and health of homeless veterans.
Veterans among veterans varies as a function of age, race or sex, and overall populations.

Montgomery, Hill, Kane & Culhane, 2013

Housing chronically homeless veterans: evaluating the efficacy of a housing first approach to HUD-VASH

To determine whether veterans participating in a Housing First approach to HUD-VASH receive housing more quickly, maintain long-term housing stability and decrease the use of more intensive and expensive health care services such as urgent care and inpatient mental health care, compared with veterans in a TAU (traditional) approach to HUD-VASH

Naturalistic demonstration project compared two groups of veterans who were experiencing homelessness and were admitted to a HUD-VASH program in a major metropolitan area. Housing first group=107 TAU group=70

Housing first received consumer driven case management program that placed priority on immediately assisting the veteran to secure permanent housing in independent apartments. Veterans are offered services that include social workers, housing specialist, access to NP or psychiatrist to provide medication management. TAU is the

Demographics: age, gender, ethnicity, marital status, military information, employment, income, previous incarceration, homeless status and treatment needs

Process times: dates when veterans were referred and admitted to HUD-VASH, received the Housing Choice Voucher, and moved into permanent housing

Housing status 12 months after moving into housing

Time to placement in permanent supported housing, rates of housing retention, and change in urgent care and inpatient mental health services utilization during the 12 months after veterans were placed in permanent supported housing.

Veterans experiencing homelessness who have psychiatric disabilities or substance abuse use problems can live independently in the community. Findings support the efficacy of permanent supported housing in reducing rates of homelessness and associated health care utilization, particularly those associated with emergency care and inpatient hospitalizations. It is feasible to serve both medically and socially vulnerable chronically homeless veterans. More rigorous research is needed in regards to housing first studies with particular need for randomized control studies to further evaluate the model with homeless individuals who are experiencing both substance abuse and mental health issues that complicate the engagement and retention process. Need for long term evaluation (housing stability).
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Research Question</th>
<th>Methodology</th>
<th>Sample</th>
<th>Findings</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| Nyamathi, Sands, Pattattucci-Aragon, Berg, Leake, Hahn & Morisky, 2004 | Perceptions of health status by homeless US veterans | The perception of health status was compared among homeless veterans and nonveterans residing in the skid row area of Los Angeles | Data were collected b/w 1997 and 2002 as part of a larger study examining the effectiveness of a case managed program by a nurse vs a standard program on the compliance of homeless adults with latent TB that were offered a 6 month course of isoniazid by directly observed therapy | 331 homeless veterans and non-homeless veterans in Los Angeles area 79 = self-reported as veterans | Descriptive analysis consisted of frequencies and percentiles. Categorical sociodemographic and behavioral characteristics assessed with chi-square and Fischer exact tests. Differences in continuous variables assessed by independent sample t-tests. Logistic regression used to estimate the independent effect of veteran status on health. | Sociodemographic factors Personal factors Situational factors Behavioral factors
| O'Toole, Conde-Martel, Gibbon, Hanus & Fine, 2003 | Health care of homeless | To demographic characteristics, comorbid conditions, and sources of usual care among homeless male | Cross-sectional, community based survey of homeless adults. Using face-to-face interviews over 5 month period. | 531 homeless adults in Pittsburgh and Philadelphia 425 male 127 male veterans | Demographic characteristics Comorbidities, health insurance, source for usual care Daily sustenance and self-identified | Differences between veterans and non-veterans with chi-squared or Fischer’s exact tests for categorical data and t test for | Sociodemographic factors Personal factors Situational factors Behavioral factors
| | | | | | | Veteran subsample was older and better educated. Veterans significantly less likely to perceive their health status as fair/poor compared to non-veteran homeless men. Only about 1/5th of veterans reported receiving veterans’ benefits while they are more likely to report having a regular source of care. Non-veterans are more likely to report a perception of fair/poor health status. Incarceration was positively associated with fair/poor health status. | | Poor coverage of VA health benefits may reflect convoluted process of establishing eligibility and registering for VA health benefits. Recommendations for health educators implementing any program to build upon existing strengths of the veteran while addressing their substance use and environmental factors (work/housing). Pressing need for medical, psychiatric, social and support services targeted towards veterans with easy access. Better facilitation of health care benefits for veterans. |
veterans: why are some individuals falling through the safety net?

Veterans and non-veterans and to specifically look at characteristics of homeless veterans who report needing VA benefits.

needs continuous data months. Homeless male veterans were significantly more likely to report a chronic medical condition and 2 or more mental health conditions with higher rates of hepatitis/cirrhosis and PTSD reported. 41.1% of veterans reported accessing the VA health system in this study.

They are significantly less likely to access community health centers, instead rely on shelter based and street outreach services for care. Indicates the need for services tailored towards this population. Special attention needs to be given to engaging homeless veterans not currently accessing services or receiving benefits.

The current study will help clinicians working with homeless veterans to build on existing strengths which distinguish homeless veterans, such as their higher education and marital history, and also on their lower rate of childhood conduct disorder. Additionally, clinicians can better understand the need to give special attention to alcohol problems in homeless veteran men.

Tessler, Rosenheck & Gamache, 2002

Comparison of homeless veterans with other homeless men in a large clinical outreach program

(1) Whether homeless male veterans have more personal resources than other homeless men.
(2) Whether homeless veterans of the era of the All-Volunteer Force are different from homeless men who served during the era of the military draft.

Structured interviews of eligible clients who enrolled in ACCESS program (Access to Community Care and Effective Services and Supports)

Structured interviews of eligible clients who enrolled in ACCESS program (Access to Community Care and Effective Services and Supports)

Sociodemographic factors, military service, social dysfunction, family of origin instability

Comparisons between veterans and nonveterans in the ACCESS program and comparisons between veterans from different eras of military recruitment policy (conscription vs. volunteer)

Veterans tend to have more personal resources than other homeless men. Homeless veterans are better educated, less likely to have never been married and more likely to be working for pay than homeless nonveterans. More evidence of alcohol dependence and abuse among homeless veterans than homeless nonveterans. Those who served in volunteer era are disproportionately black, never married, homeless for less than a year, working for pay, and score higher in childhood conduct disorder, family of
| Tsai, Doran & Rosenheck, 2013 | To examine the rate of homelessness among veterans who used EDs at VA facilities in fiscal year 2010 and compared homeless ED users with non-homeless Ed users on sociodemographic characteristics, medical and psychiatric diagnoses, use of psychotropic medications & other clinical characteristics | Cross sectional study design to compare, among ED users, veterans identified as homeless with those who were not homeless on sociodemographics, medical & psychiatric diagnoses, prescriptions for psychotropic medication, mortality risk indicators & other clinical characteristics | Identified veterans who used VA EDs in 2010. Homeless veteran ED users=64,091 Non-homeless veteran ED users=866,621 | Effect size difference btw homeless and other ED users when comparing characteristics. First set of analyses addressed the association btw general characteristics & homelessness among ED users. Second analyses addressed the relationship of specific diagnoses coded during ED visits to homelessness. Bivariate comparisons and stepwise logistic regression | Sociodemographics (service connection), medical and psychiatric diagnoses, use of psychotropic medications and other clinical characteristics | Homeless ED users were younger, had lower incomes, were more likely to have liver disease, HIV/AIDS but less likely to have dementia and had slightly greater indication of mortality risk. Homeless ED users more likely to have broad range of psychiatric disorders (strongest effects from substance abuse and dual diagnosis). Homeless ED users more than twice the odds of having a diagnosis of drug use disorder, schizophrenia or adjustment disorder than non-homeless ED users. Four class model of risk factors identified: -Relatively few problems -Dual diagnosis -Poverty-substance abuse-incarceration -Disabling medical problems The relatively few problems group |
| Tsai, Kasprow, & Rosenheck, 2013 | To identify risk and need profiles of homeless veterans and examine the relationship between profiles and referrals and admissions to VA homeless service programs | Examined data from the VA’s new Homeless Operations Management and Evaluation System (HOMES). Used latent class analysis based on 9 homeless risk factors. | Assessment interviews conducted Used latent class analysis to identify four classes of risk. Different classes then compared on sociodemographic characteristics, clinical diagnosis and homeless Homeless history Incarceration history Unemployment history Income Medical history Psychiatric history | More attention to the general social isolation of homeless patients as well as mental health care is needed. Advocates suggest more comprehensive ED discharge planning to facilitate access of homeless patients to supported housing and other psychiatric rehabilitation programs. EDs may be important location for specialized outreach for the homeless. Given the great use of EDs by homeless greater attention to providing specialized services including social services and psychiatric services may reduce ED use. | origin instability and on all three of the subscales of the addiction severity index. The four identified latent groups are important in understanding how homeless veterans differ from each other and what services might be appropriate for each group. These groups were referred to different homeless programs with different admission |
referral and admission patterns

was significantly younger, more likely to be female, more likely to be married and had more years of education than other groups. The disabling medical problems group was the oldest group, most likely to have a chronic medical condition and most likely to be unemployed in the past 3 years. Vets in dual diagnosis group had highest rates of substance use disorders, psychotic disorders and psychiatric hospitalizations.

Need for diversity of homeless VA services because of the heterogeneous risk and needs of the homeless veteran population.

<table>
<thead>
<tr>
<th>Tsai, Mares &amp; Rosenheck, 2012</th>
<th>Observational study</th>
<th>162 chronically homeless veterans</th>
<th>Sociodemographic data, war era categorization, mental health and substance abuse self-reported diagnoses Housing, clinical status, health service use, VA connection and VA health service use</th>
<th>Outcomes over time</th>
<th>War time era for veterans</th>
<th>Veterans tended to be older, from the Vietnam era age group, were more likely male and more likely to have completed high school than non-veterans. Veterans reported greater use of outpatient mental health service than non-veterans. Both veterans and non-veterans gradually reduced their use of health care services.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do homeless veterans have the same needs and outcomes as non-veterans</td>
<td>Comparing veterans and non-veterans in a national-supported housing initiative for chronically homeless adults initiated jointly by the US Department of Housing and Urban Development, the Department of Health and Human Services and VA.</td>
<td>Sociodemographic data, war era categorization, mental health and substance abuse self-reported diagnoses Housing, clinical status, health service use, VA connection and VA health service use</td>
<td>Outcomes over time</td>
<td>War time era for veterans</td>
<td>Veterans tended to be older, from the Vietnam era age group, were more likely male and more likely to have completed high school than non-veterans. Veterans reported greater use of outpatient mental health service than non-veterans. Both veterans and non-veterans gradually reduced their use of health care services.</td>
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Supportive housing programs for homeless veterans reduce their clinical needs. Only half of veterans in the sample reported that they use VA for medical services and less than one-fifth reported that the use of VA psychiatric or substance abuse services. This suggests that veterans often use services provided by community providers and encourages VA to coordinate its efforts with community providers in

| |
| --- | --- | --- | --- | --- | --- |
| | | | | | |
services over time after they obtained housing, especially inpatient services. serving the homeless veterans. More research is needed on how often homeless veterans use non-VA services only or both VA and non-VA services.
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<td>Goldstein, Luther, Haas, Appelt &amp; Gordon, 2010</td>
<td>Aims of identifying the factor structure of health status of homeless veterans that underlies the clusters identified and evaluating demographic and historical data that could be associated with each of the factors obtained.</td>
<td>Using data from a previous study to determine comorbid conditions among homeless veterans; the present study examined the structure of subgroup patterns through the use of factor analysis. Interview based questionnaire administered to veteran who were presently or recently homeless.</td>
<td>3,595 interviews conducted over two year period in VISN 4 (PA, OH, WV, NJ).</td>
<td>Factor analysis computed using diagnostic ratings made by interviewers as to the presence or absence of the psychiatric and general medical disorders.</td>
<td>Psychiatric disorders: schizophrenia, mood disorder, personality disorder, combat PTSD, adjustment disorder, alcohol/drug abuse/dependence, AOD Medical disorders: eye, cardiovascular, HTN, COPD, gastrointestinal, liver, seizure, orthopedic, skin, trauma</td>
<td>Factors represent configurations rather than single disorders. Cardiopulmonary disease w/o significant psychiatric disorder, mood disorders associated with orthopedic, eye and GI health problems, stress related disorders, substance use disorders and psychosis. Homeless veterans have complex and heterogeneous pattern of health problems that do not fit any single rubric. Married participants were less likely to have a high end score on the addiction factor than unmarried participants. Odds ratio for use of DVA healthcare facilities by individuals high on stress factor was quite low, suggesting that homeless veterans</td>
<td>Study examined the structure of four previously defined subgroups (addiction, psychosis, vascular disorders &amp; generalized medical and psychiatric illness) through factor analysis which yielded a five factor solution: cardiac, mood, stress, addiction and psychosis factors. Better understanding of patterns of homeless veterans health can be useful with regard to treatment and management planning.</td>
</tr>
</tbody>
</table>
Goldstein, Luther, Jacoby, Haas & Gordon, 2008
A taxonomy of medical comorbidity for veterans who are homeless
(1) to identify types and patterns of medical illness found in homeless veterans
(2) to determine if a finite number of profiles could be identified using present or absence ratings of the disorders and if those profiles could be related to demographic characteristics, living situation, length of homelessness and referral areas recommended by interviewers.
Secondary data analysis from a VA designed and administered interview-based questionnaire for veterans who were presently or recently homeless. Used in many in others studies.
Data made available from 3,595 interviews conducted over 2 year period in one VISN. Homeless veterans from both urban and rural areas living in shelters, on the streets or with family or friends. Participants had to have at least one medical disorder to be included which included 2,978 cases.
Cluster analysis used to classify the presence of absence of 12 disorders. Areas for evaluating intergroup differences include: demographic factors, living situation describing the homeless condition, substance use history, employment status and referral recommendations made by the interviewers.
The focus of the study included medical history section and relevant demographic and historical data.
Four resulting clusters best fit the data: cluster 1- oral/dental and orthopedic disorders; cluster 2- eye problems, hypertension, cardiovascular and GI disorders; cluster 3- hepatic and GI disorders; cluster 4- hypertension with secondary elevations of cardiovascular and pulmonary disorders.
Cluster 1 =dental/orthopedic problems
Cluster 2 =generalized illness
Cluster 3 =hepatic disorders
Cluster 4 =cardiopulmonary disease
Over 75% of the cases in each cluster were rated as having at least one psychiatric disorder. Found 18% of the participants were receiving VA disability benefits.
The characteristics of cluster profiling suggest the presence of significant comorbidity in the homeless veteran population.
The majority of homeless veterans with health problems have multiple medical issues that are often associated with substance use disorders. Recommendations for basic support of this vulnerable group, psychiatric care and medical care.
Knowledge about common comorbidity associations and taxonomic systems may be helpful in designing health evaluation programs better fit to this population.

Tsai, Kasprow, & Rosenheck, To identify risk and need profiles of homeless
Examined data from the VA's new Homeless
120,852 veterans from 142 sites
Assessment interviews conducted
Homeless history Incarceration history
Four class model of risk factors identified:
The four identified latent groups are important in understanding how with PTSD or history of trauma seem reluctant to utilize DVA resources.
Latent homeless risk profiles of a national sample of homeless veterans and their relation to program referral and admission patterns


Used latent class analysis to identify four classes of risk. Different classes then compared on sociodemographic characteristics, clinical diagnosis and homeless programs to which they were referred.

Unemployment history
Income
Medical history
Psychiatric history

-Relatively few problems
-Dual diagnosis
-Poverty-substance abuse-incarceration
-Disabling medical problems

The relatively few problems group was significantly younger, more likely to be female, more likely to be married and had more years of education than other groups. The disabling medical problems group was the oldest group, most likely to have a chronic medical condition and most likely to be unemployed in the past 3 years.

Vets in dual diagnosis group had highest rates of substance use disorders, psychotic disorders and psychiatric hospitalizations.

homeless veterans differ from each other and what services might be appropriate for each group. These groups were referred to different homeless programs with different admission patterns. Need for diversity of homeless VA services because of the heterogeneous risk and needs of the homeless veteran population.
## Homelessness, Veterans & Emergency Department Use

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<tr>
<td>Chambers, Chiu, Katie, Kiss, Redelemier, Levinson &amp; Hwang, 2013</td>
<td>To identify predictors of frequent ED use among population based sample of homeless adults in Toronto, Ontario</td>
<td>Assessed ED visit rates using administrative data from the Institute for Clinical Evaluative Sciences</td>
<td>1189 homeless adults recruited from shelters and meal programs in Toronto over 12 consecutive months in 2004/05</td>
<td>Logistic regression to identify predictors of ED use</td>
<td>Characteristics of homeless ED users Demographics</td>
<td>Predisposing factors significantly associated w/ any ED use were being homeless 2 years or more. Frequent ED users represented only 10% of sample but contributed to more than 60% of total ED visits during study.</td>
<td>Subgroups of homeless individuals were extremely high utilizers of ED and had multiple, complex health care needs. Interventions such as intensive case management or housing first models have potential to reduce ED visits, lower costs and improve social and clinical outcomes. Need improvement in coordination of care across health and social services to reduce homeless ED use.</td>
</tr>
<tr>
<td>Chwastiak, Tsai &amp; Rosenheck, 2012</td>
<td>To evaluate the impact of a diagnosis of serious mental illness on use of a primary care provider (vs ED) as a source of care by people who were chronically homeless</td>
<td>Cross-sectional secondary analysis of data from the Collaborative Initiative to Help End Chronic Homelessness (CICH).</td>
<td>750 chronically homeless adults enrolled in the 11-site CICH program</td>
<td>Face to face interviews, self-report measures. Usual source of medical care. Sociodemographic characteristics. Clinical measures (diagnosed medical conditions). Substance abuse. Severity of psychiatric symptoms. Health status. Health insurance. Community</td>
<td>Usual source of care: ED, clinic in hospital, clinic in community, doctor’s office, Mobile health clinic, other..</td>
<td>Lack of health insurance in the previous year was strongest indicator of using the ED as regular source of medical care. Sample from CICH showed high rates of chronic medical conditions along with co-occurring psychiatric and substance use disorders. Major barrier to</td>
<td>Findings suggest previously uninsured individuals had fewer ED visits and inpatient admissions and more primary care visits. This supports health policy implications (Affordable Care Act) to expand the scope of Medicaid to increase the number of individuals covered by states. More aggressive attempts needed to increase access to Medicaid in order to reduce unnecessary use of</td>
</tr>
<tr>
<td>DiPietro, Kindermann &amp; Schenkel, 2012</td>
<td>To document the clinical and demographic characteristics of the 20 most frequent users of emergency departments in one urban area (Baltimore City). To provide a perspective of the experience of homelessness among Baltimore City’s most frequent ED users.</td>
<td>Retrospective study based on a review of administrative records from 3 EDs located within 2 miles of each other and the databases maintained by two agencies providing services to homeless people in the same urban area.</td>
<td>20 of the most frequent users identified in the combined dataset. Patients considered homeless if they had come to at least one of the service agencies during the study year.</td>
<td>Frequency of use, insurance status, top ICD-9 codes.</td>
<td>Demographic, clinical and housing status characteristics of top 20 users.</td>
<td>Most common characteristic among to 20 users was homelessness. Other frequent characteristics was being relatively young and having poor health. The top 20 users accounted for 1% of the total visits for these three EDs during study period. Most common conditions among users were: pain, nausea/vomiting, altered consciousness, and respiratory complaints. Visits related to chronic disease conditions (HIV, HTN, DM, drug/etho abuse). Strongest sociodemographic correlate of ED use was homelessness, with homeless veterans 6.6 times more likely to be among the most frequent ED users. Heart failure, headaches,</td>
<td>91</td>
</tr>
</tbody>
</table>
### Doran, Vashi, Platis, Curry, Rowe, Gang & Vaca, 2013

**Navigating the boundaries of emergency department care:** addressing the medical and social needs of patients who are homeless

To understand interpersonal and systems-level factors relevant to delivering health care to emergency department patients who are homeless. Sought to gain meaningful insight into the multifacted processes of delivering health care to patients who are homeless in the ED to guide improvements in current practice and generate hypotheses that can be further explored for future research.

**Qualitative grounded theory study**

Semi-structured interviews with emergency medicine residents from 2 residency programs

**Emergency medicine residents as key informants from 2 residency programs**

**Interviews conducted by one researcher. Coding completed by a core team of 3 researchers.**

Three unifying themes found: (1) the use of pattern recognition in identifying and treating patients who are homeless (2) variations from standard ED care for patients who are homeless and (3) tensions in navigating the boundaries of ED social care.

Participants felt particularly ineffectual with patients who were both alcoholic and chronically homeless.

**Need for more uniform homelessness screening and documentation procedures in ED.**

Residents have a lower threshold for admitting patients who are homeless to the hospital. Need for future exploration regarding the difficulties in identifying patients who are homeless in the ED, how homelessness affects ED care, and tensions surrounding social care provision in the ED.

More research is needed to better understand social care in ED and who to best provide it.

### Hastings, Smith, Weinberger, Schmader, Olsen & Oddone, 2011

**Emergency**

To describe national VAMC ED disposition rates; to characterize the population of veterans with ED use.

**Retrospective cohort study using a national sample of veterans who had a VAMC ED visit over a 9 month observation**

649,537 eligible patients from sample of patients that had 1 or more visits to VAMC ED during 9

**Descriptive statistics to characterize patient sample. Generalized estimating equations to examine influence of patient**

Dependent variable= ED visits and hospital admissions within 30 days of index ED visit

Independent variables= predisposing

Homeless persons account for only 0.5% of nonfederal ED visits, but the frequency of homelessness was

Need for better screening mechanisms to identify veterans at risk for recidivism and improved methods of ensuring prompt follow-up care for those who need it.
department visits in veterans affairs medical facilities

treat-and-release ED visits; to
determine the
frequency of
repeat ED visits,
hospitalizations, &
deaths
experienced by
veterans after
being treated and
released from a
VAMC ED and to
identify factors
that predict repeat
ED visits and
hospitalizations
within 30 days of
the original treat-
and-release ED
visit.

month period. Final sample
included 128,174
individuals.
102,516 treated
and released
25,630
admitted to
to hospital
28 died in ED

and ED visit factors
outcomes.

characteristics (age,
sex, race), enabling
resources (income,
homeless, insured),
need variables
(comorbidity, service
connection, treat-and-
release, hospital
admissions)

10 times higher in
this sample of
veterans treated
and released from
VAMC EDs.

Homelessness
predictor of repeat
ED visits and
hospital admissions.

Homeless vets
face challenges
with obtaining
medications,
arranging care
with outpatient
providers and
securing
transportation for
follow-up
appointments.

Severity of
underlying illness
and lack of social
support also
contribute to
higher rates of ED
return.

Ku, Scott, Kertesz &
Pitts, 2010

Factors
associated
with use of
urban
emergency
departments
by the US
homeless
population

Study sought to
characterize
homeless people
who visited urban
EDs across the US
Assess whether
homelessness
itself or
characteristics
commonly
associated with
homelessness
independently
predicted ED use

Descriptive, cross-
sectional secondary
analysis of the ED
components of the
2005/2006 National
Hospital
Ambulatory Care
Surveys (NHAMCS-ED)

National
sample from
survey users
excluding long-
stay military,
 federal and VA
hospitals.
91% EDs 2005
87% EDs 2006

Bivariate and
multivariable
associations

Homelessness=
dependent variable
Demographic
characteristics/clinical
characteristics=
independent variables

Homeless people
arrive by
ambulance more
often, older, more
often uninsured,
more often treated
for acute injury,
alcohol, drug
abuse or
psychiatric injury.
Increased
tendency toward
ED use shortly
after recent
hospital care by
homeless.
Homeless

More comprehensive
discharge planning and
specialized ED based
programs.
Consider medically
supervised recovery
environments to reduce
overload for hospitals and
EDs.
Housing first approaches
to reduce costs and
improve health outcomes.
High incidence of repeat
ED visits and frequent
hospital use identifies a
pressing need for policy
remedies.
Kushel, Perry, Bangsberg, Clark and Moss, 2002

To examine factors associated with emergency department use among homeless and marginally housed persons

Community based survey, 45 minute interviews using standard questionnaire

2578 English speaking homeless and marginally housed adults in San Francisco area

Predisposing factors: age, sex, ethnicity, education, housing status, criminal hx, victimization, substance use, mental illness.

Enabling factors: income, medical insurance, receipt of public benefits.

Need factors: self-reported health status, chronic illness and HIV status.

Frequency and volume of emergency department encounters.

Use of ambulatory care services.

Inpatient hospitalizations

40% of sample used ED in previous year, which is 3 times the US norm.

Repeated ED users accounted for the majority of total ED use.

Effects of lack of housing (chronic illness, violence) may increase ED use.

Almost half of respondents used ED as their only source of health care.

Need to reduce ED overcrowding by focusing on the homeless and marginally housed who have repeated ED use.

Homeless people use EDs according to medical need and more attention should be paid to providing more services to reduce the need and repeated visits to the ED.

Health policy to provide housing to individuals may help reduce the homeless and marginally housed reliance on the ED system.

Tsai, Doran & Rosenheck, 2013

When health insurance is not a factor: national comparison of homeless and non-homeless US veterans who use veterans affairs emergency departments

Cross sectional study design to compare, among ED users, veterans identified as homeless with those who were not homeless on sociodemographic characteristics, medical and psychiatric diagnoses, use of psychotropic medications and other clinical characteristics

Identified veterans who used VA EDs in 2010. Homeless veteran ED users=64,091 Non-homeless veteran ED users=866,621

Effect size difference btw homeless and other ED users when comparing characteristics.

First set of analyses addressed the association btw general characteristics & homelessness among ED users.

Second analyses addressed the relationship of specific diagnoses coded during ED visits to homelessness.

Bivariate

Sociodemographics (service connection), medical and psychiatric diagnoses, use of psychotropic medications and other clinical characteristics

Homeless ED users were younger, had lower incomes, were more likely to have liver disease, HIV/AIDS but less likely to have dementia and had slightly greater indication of mortality risk.

Homeless ED users more likely to have broad range of psychiatric disorders (strongest effects from substance)

More attention to the general social isolation of homeless patients as well as mental health care is needed.

Advocates suggest more comprehensive ED discharge planning to facilitate access of homeless patients to supported housing and other psychiatric rehabilitation programs.

EDs may be important location for specialized outreach for the homeless.

Given the great use of EDs by homeless greater attention to providing specialized services
To examine the proportion of homeless VA service users who use VA ED services at moderate and high levels over a one year period in comparison with domiciled VA service users and then identify sociodemographic, clinical, service use and psychotropic medication variables associated with ED use among homeless VA service users.

Tsai & Rosenheck, 2013

Risk factors for ED use among homeless veterans

Analysis of data through VA electronic patient record system. Cross-sectional case-control design compared homeless non-ED users to moderate and frequent ED users on sociodemographic characteristics, medical and psychiatric diagnoses, psychotropic medication prescriptions and mortality risk indicators.

5,388,684 domiciled VA service users. 142,695 homeless VA service users. Homeless classification and ED use per electronic record.

Compared three groups: non-ED users, moderate ED users (1-4 visits) and frequent ED users (more than 4 ED visits).

Sociodemographics, medical, psychiatric status, and psychotropic medication use of homeless VA patients separated by ED use frequency

Homeless VA service users more than 7 times likely to visit ED frequently than domiciled VA service users. Overall, homeless VA service users were 3 times as likely to use ED than domiciled VA service users. Big difference between homeless ED and non-ED users were in diagnoses of dementia, liver disease and congestive heart failure (all chronic disorders)

National VA data indicates that 45% of homeless VA service users used the VA ED services at least once during the study year (2010). Despite a lack of insurance barriers playing a role in medical and psychiatric care. Indicates that other factors such as social play a role in increasing risk for ED use among this population. Homeless ED users had higher rates of psychiatric diagnoses than homeless non-ED users. High levels of medical and mental health service use among homeless ED users suggests that they are seeking help for psychosocial needs as well.

comparisons and stepwise logistic regression

abuse and dual diagnosis). Homeless ED users more than twice the odds of having a diagnosis of drug use disorder, schizophrenia or adjustment disorder than non-homeless ED users.

including social services and psychiatric services may reduce ED use.
# Homelessness, Veterans & Barriers to Health Care

<table>
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<tr>
<th>Citation</th>
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<tbody>
<tr>
<td>Applewhite, 1997</td>
<td>To explore the perceptions of homeless veterans about the nature and scope of homelessness, as well as the obstacles encountered in obtaining services. Following questions explored: What social problems do homeless veterans experience? What obstacles do veterans encounter in obtaining health and human services?</td>
<td>Qualitative study: use of focus groups to collect data. Semi-structured interview guide used.</td>
<td>Convenience sample of 60 male veterans (5 focus groups). Population was diverse selection of veterans from different wars and military experience, different racial groups, chronic and recently homeless, those familiar and unfamiliar with social services and veterans from all age groups.</td>
<td>Content analysis used to analyze data (coding and sorting of data into categories, themes and patterns).</td>
<td>Problems confronting homeless veterans: health and mental health, resource related and public perception. Barriers to service use: insensitive service providers, negative policies, and ineffective service delivery system.</td>
<td>Health and mental health problems focused around chronic health problems, substance abuse, psychosocial and clinically diagnosed problems and self-esteem problems. Substance abuse viewed as major obstacle in overcoming homelessness. Most psychosocial and psychiatric problems came from veterans who experienced combat duty while serving in Vietnam. Their lack of self-esteem seen as a barrier that often destroyed their will and determination to escape homelessness. Housing options and job availability considered major resource problem. Stigma associated with homelessness often results in homeless people being victimized and blamed by the general public for their circumstances in life. See service delivery</td>
<td>Need to improve service delivery to make more accessible to veterans and more user friendly. Especially addressing problems related to being in the military (PTSD, readjustment, war service recognition). Need for community based resources in order for veterans to reintegrate into society as productive, contributing individuals and families. Help veteran’s secure affordable permanent housing for themselves and their families. Need for creative planning and policies across different levels.</td>
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<tr>
<td>Author(s)</td>
<td>Study Title</td>
<td>Study Design &amp; Methodology</td>
<td>Key Findings</td>
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<td>Baggett, O’Connell, Singer &amp; Rigotti, 2010</td>
<td>The unmet health care needs of homeless adults: a national study</td>
<td>Secondary analysis of the 2003 Health Care for the Homeless (HCH) User Survey. Nationally representative survey of individuals using clinical services provided by the federally funded HCH program.</td>
<td>73% of respondents reported at least one unmet health need: inability to obtain needed medical or surgical care, prescription medications, mental health care, eyeglasses, and dental care. Significant predictors of unmet needs include food insufficiency, out-of-home placement as a minor, vision impairment and lack of health insurance. Past year employment is associated with unmet needs for medical or surgical care and prescription medications. Confirms that when employment is sole source of income in poverty setting patients often prioritize work over health.</td>
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<td>Blue-Howells, McGuire &amp; Nakashima, 2008</td>
<td>Co-location of health care</td>
<td>Case study to examine how the Veterans Affairs Greater Los Angeles Healthcare Case study Qualitative New program offered same day co-located mental health, One innovative program at GLA</td>
<td>Patient-related barriers (lack of health insurance) to care and institution-related barriers (service system as insensitive and confusing tangle of policies, programs and procedures. The service delivery system lacks comprehensiveness and fairness according to veterans (bureaucratic obstacles).</td>
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<td>Substantial barriers for homeless adults exist in accessing multiple dimensions of health care. Health services compatible with work schedules and delivered in a flexible format will be required to best serve homeless people who rely on employment as a source of income. Incorporating vision services for the homeless into health care model may alleviate the burden of vision impairment and enhance functionality and improve access to other dimensions of care for the homeless.</td>
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services for homeless veterans: a case study of innovation in program implementation

Chwastiak, Tsai & Rosenheck, 2012
Impact of health insurance status and a diagnosis of serious mental illness on whether chronically homeless individuals engage in primary care

To evaluate the impact of a diagnosis of serious mental illness on use of a primary care provider (vs ED) as a source of care by people who were chronically homeless.

Cross-sectional secondary analysis of data from the Collaborative Initiative to Help End Chronic Homelessness (CICH).

750 chronically homeless adults enrolled in the 11-site CICH program


Usual source of care: ED, clinic in hospital, clinic in community, doctor’s office, Mobile health clinic, other.

Lack of health insurance in the previous year was strongest indicator of using the ED as regular source of medical care. Sample from CICH showed high rates of chronic medical conditions along with co-occurring psychiatric and substance use disorders. Major barrier to engaging in primary care is lack of health insurance.

Findings suggest previously uninsured individuals had fewer ED visits and inpatient admissions and more primary care visits. This supports health policy implications (Affordable Care Act) to expand the scope of Medicaid to increase the number of individuals covered by states. More aggressive attempts needed to increase access to Medicaid in order to reduce unnecessary use of expensive services such as EDs and achieve cost savings.

Tailored primary care service delivery is associated with superior service experience for patients who experience homelessness. More research to better understand which aspects of service tailoring matter most and whether they can be translated across service environments for improved with co-location of services and one intake system offered on same day basis.

The blending of traditional primary care and homeless care can lead to quicker services for veterans and improve access to medical care, mental health treatment and social services.

Kertesz, Holt, Steward, Jones, Roth, Stringfellow, Gordon, Kim, Austin, Henry, Johnson, Granstaff, O’Connell, Golden, Young, Davis & Pollio, 2013
Compared homeless patients’ experiences of care in health care organizations that differed in their degree of primary care design service tailoring

Survey based comparison of patient experiences of primary care at 5 federally funded sites that differed in the degree to which primary care service delivery was tailored for medical and homeless services with a coordinated intake system.

Random sample of homeless-experienced English speaking persons who received primary care from each site of care. 6371 persons met criteria

Use of Primary Care Quality-Homeless (PCQ-H) Survey previously developed. 3 phases of analysis using chi square, ANOVA and regression

Patient-clinician relationship and perceptions of cooperation among providers were highest where homeless-tailing was most pronounced. Higher levels of tailoring associated with a better experience.
Comparing homeless persons' care experiences in tailored versus non-tailored primary care programs

Kushel, Vittinghoff & Haas, 2001
Factors associated with the health care utilization of homeless persons

To describe factors associated with use of and perceived barriers to receipt of health care among homeless persons.


2874 currently homeless persons interviewed through homeless assistance programs throughout the US in Oct-Nov 1996

Bivariate relationships b/w independent variables and 5 outcome variables. Multivariate logistic models based on significant bivariate relationships and a priori data

Self-reported ambulatory care services, emergency departments and inpatient hospital services. Inability to receive necessary care. Inability to comply with prescription medication in the prior year

An unfavorable experience was 1.5 to 2 times more common at the mainstream VA sites compared with the tailored non-VA site.

Both homeless and non-homeless populations.

Nyamathi, Sands, Pattatucci-Aragon, Berg, Leake, Hahn & Morisky, 2004
Perceptions of health status by homeless US veterans

The perception of health status was compared among homeless veterans and homeless nonveterans residing in the skid row area of Los Angeles

Data were collected b/w 1997 and 2002 as part of a larger study examining the effectiveness of a case managed program by a nurse vs a standard program on the compliance of homeless adults with latent TB that were offered

331 homeless veterans and non-homeless veterans in Los Angeles area 79= self-reported as veterans

Descriptive analysis consisted of frequencies and percentiles. Categorical sociodemographic and behavioral characteristics assessed with chi-square and Fischer exact tests. Differences in continuous variables assessed by independent sample t-tests.

Sociodemographic factors

Veteran subsample was older and better educated. Veterans significantly less likely to perceive their health status as fair/poor compared to non-veteran homeless men.

Situational factors

Only about 1/5th of veterans reported receiving veteran’s benefits while they are more likely to report having a regular source of care.

Behavioral factors

Poor coverage of VA health benefits may reflect convoluted process of establishing eligibility and registering for VA health benefits. Recommendations for health educators implementing any program to build upon existing strengths of the veteran while addressing their substance use and environmental factors (work/housing). Pressing need for
a 6 month course of isoniazid by directly observed therapy

Logistic regression used to estimate the independent effect of veteran status on health.

Non-veterans are more likely to report a perception of fair/poor health status. Incarceration was positively associated with fair/poor health status. Medical, psychiatric, social and support services targeted towards veterans with easy access. Better facilitation of health care benefits for veterans.

Wen, Hudak & Hwang, 2007

To examine how homeless persons experienced “welcomeness” and “unwelcomeness” in past encounters with health care providers and to characterize their perceptions of these interactions.

Qualitative content analysis of 17 in-depth interviews.

Convenience sample
17 homeless men and women
Aged 29-62
Residing in 5 shelters in Toronto, Canada

N/A

“I-it” encounters - felt reduced to an object
“I-you” encounters - valued as a person

Respondents stated that unwelcome experiences elicited strong emotional responses that decreased the likelihood they would see health care in the future. Respondents linked unwelcoming experiences with discrimination and a stigma against them resulting in stereotypes and not openness.

Create a welcoming environment for the vulnerable population in order to provide more effective care. Many unwelcoming experiences involved non-clinical staff suggesting that all health care workers (receptionists) be included in future research studies and in educating staff about this population. Future studies looking at perceptions from both homeless patients and health care providers may provide more comprehensive view of how welcome the homeless are and their own behavior towards health care staff.
## Homelessness, Veterans & Recommendations for Improving Care

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<td>Co-location of health care services for homeless veterans: a case study of innovation in program implementation</td>
<td>Case study to examine how the Veterans Affairs Greater Los Angeles Healthcare System (GLA) improved homeless veteran service utilization through program innovation that addressed service fragmentation and to examine the implementation process of the new program.</td>
<td>One innovative program at GLA</td>
<td>N/A</td>
<td>Patient-related barriers (lack of health insurance) to care and institution-related barriers (service fragmentation) to care.</td>
<td>Creating an access center for homeless veterans that conducted screening, assessment and referral to all services on a one-stop basis to promote continuity and rapidity of care.</td>
<td>Institutional barriers leading to service fragmentation for homeless veterans due to geographical barriers and waiting times can be improved with co-location of services and one intake system offered on same day basis. The blending of traditional primary care and homeless care can lead to quicker services for veterans and improve access to medical care, mental health treatment and social services. Tailored primary care service delivery is associated with superior service experience for patients who experience homelessness. More research to better understand which aspects of service tailoring matter most and whether they can be translated across service environments for both homeless and non-homeless populations.</td>
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<td>Kertesz, Holt, Steward, Jones, Roth, Stringfellow, Gordon, Kim, Austin, Henry, Johnson, Granstaff, O’Connell, Golden, Young, Davis &amp; Pollio, 2013</td>
<td>Compared homeless patients’ experiences of care in health care organizations that differed in their degree of primary care design service tailoring</td>
<td>Survey based comparison of patient experiences of primary care at 5 federally funded sites that differed in the degree to which primary care service delivery was tailored for the homeless. 40-60 minute survey conducted face-to-face</td>
<td>Random sample of homeless-experienced English speaking persons who received primary care from each site of care. 6371 persons met criteria 2584 recruited 870 successfully contacted and screened 601 included in analysis</td>
<td>Use of Primary Care Quality-Homeless (PCQ-H) Survey previously developed. 3 phases of analysis using chi square, ANOVA and regression</td>
<td>Patient-clinician relationship and perceptions of cooperation among clinicians Accessibility or coordination Homeless-specific needs</td>
<td>Patient-clinician relationship and perceptions of cooperation among providers were highest where homeless-tailoring was most pronounced. Higher levels of tailoring associated with a better experience. An unfavorable experience was 1.5 to 2 times more common at the mainstream VA sites compared with the tailored non-VA site.</td>
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To determine that a demonstration clinic integrating homeless, primary care and mental health services for homeless veterans with serious mental illness or substance abuse would improve medical health care access and physical health status.

Quasi-experimental design. Comparing usual VA care group before the demonstration clinic opened and the integrated care group. 2 hour structured based interview used and repeated at 6, 12 and 18 months after enrollment.

Pre and post integration groups recruited from waiting room of Homeless Drop-In Center. 130 veterans recruited to each arm of study.

Bivariate analysis comparing baseline characteristics and follow-up interview completion rates. Regression analyses compared groups on initial timeliness of access to primary care, 12 month receipt of prevention services and 18 month use and number of VA primary care outpatient visits, ED visits and inpatient stays.

Mixed regression model compared outcomes for 30 day physical health status at baseline 6, 12 and 18 months. Homeless compared with non-homeless in regards to medical, mental health and substance abuse conditions.

Veterans in collocated and actively coordinated services received primary care appointments more quickly, had higher levels of preventative services, and lower levels of ED use than veterans in standard care group.

Medical treatment and prevention received in one location with multi-need populations can be provided in a more timely and effective manner than in disconnected clinics.

No significant improvement in physical health status over 18 months. Almost all veterans in both groups had a chronic medical condition, with the homeless group having more conditions per person.

Most common conditions in both groups were depression, anxiety disorder, PTSD, and bipolar disorder. 48% of the homeless cohort accessed the ED, averaging 2 visits per person over the 6 month period. Those homeless that utilized primary care

Integrating medical treatment with homeless and mental health services can improve the quality of medical care for homeless people with serious mental illness or substance abuse. Further research needed to determine generalizability beyond homeless veterans and longer term effects (beyond 18 mos.)

To compare service use among homeless and non-homeless veterans newly enrolled in a medical home model and identified patterns of use among homeless veterans associated with reductions in emergency department use.

Case-control matching with nested cohort analysis to measure 6-month health services use, new diagnoses, and care use patterns in veterans at Providence, RI VAMC.

127 homeless veterans 106 non-homeless veterans New patients to the RI VAMC who enrolled in primary care and had at least 2 visits with their primary care team within the first 6 months of enrollment.

Patient demographic characteristics, sheltering status at baseline and at end of 6 months, comorbid medical, mental health and substance abuse conditions at baseline; new diagnoses in these categories during 6 months; and health service

Need to consider the unmet health needs of disadvantaged populations in health systems planning. Providing an alternate setting with enhanced access, population-tailored approach and high intensity treatment engagement to receive care can reduce ED visits (expensive) rather than case management through the ED.

More research is needed to better understand treatment engagement in this vulnerable population.
| O'Toole, Buckel, Bourgault, Blumen, Redihan, Jiang & Friedmann, 2010 | To determine whether a population-tailored approach to how primary care is organized and delivered to homeless veterans is associated with better health care and utilization outcomes. | Retrospective cohort study comparing 12-month chronic disease management outcomes and health services utilization among homeless patients enrolled in the Homeless-Oriented Primary Care Clinic against historical sample of homeless patients seen in the general internal medicine clinics. | 177 patients included in study 79 consecutively enrolled patients from the HOPC 98 controls from general internal medicine clinic | Used electronic medical record in the Veterans Health Administration. Tracked 3 most prevalent chronic disease conditions: HTN, DM, HLD. | HTN, DM, HLD changes Primary care visits ED visits Hospitalizations | Homeless veterans accessing population-tailored primary care model had significantly more primary care visits and fewer medical admissions than did those homeless persons attending a traditional general internal medicine clinic. How primary care is organized and delivered to homeless persons is important variable in improving chronic disease management. Tailoring primary care to homeless veterans can decrease unnecessary ED use and medical admissions and improve chronic disease management. Can also reduce ED overcrowding and overall disease burden among chronic homeless. |
| O'Toole, Pirraglia, Dosa, Bourgault, Redihan, O'Toole & Blumen, 2011 | Is a population based patient centered medical home model better than a traditional patient care approach. | Quasi-experimental pre and post analysis of patients enrolled in special-population medical home in 2008 who was previously enrolled in primary care clinic in 2006. | 457 patients identified 71 homeless 167 geriatric 145 women 74 serious mental illness | Use VA electronic record Primary care visits ED visits Inpatient stays -all pre and post enrollment in medical home | HTN, DM, HLD chronic disease management measures | Patient aligned care teams specific for vulnerable populations can increase their engagement in an access to primary care and improve their chronic disease monitoring and management outcomes. Tailoring the medical home model to the specific needs and challenges facing high-risk populations can increase primary care utilization and improve chronic disease monitoring and diabetes management. More work is |
Understanding the Health of Veterans Who Are Homeless:
A Focused Literature Review

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Abstract

The United States Department of Housing and Urban Development estimates that almost 50,000 veterans are homeless on any given night. Homeless veterans are at greater risk of health disparities than their housed counterparts due to the multifactorial nature of their health and social needs. The Department of Veterans Affairs, in collaboration with more than a dozen other federal agencies, has concentrated efforts to improve the health of this vulnerable population while enacting a plan to eliminate veteran homelessness within the near future. Understanding the unique health needs of veterans who are homeless allows the profession of nursing and other healthcare providers to better support these efforts.
Homelessness is associated with poorer health status. Maintaining health and recovering from disease is especially challenging for this population because more energy is expended on the attempt to satisfy basic human needs such as food, shelter, and safety. In the United States, over half a million people lack housing on any given night (Department of Housing and Urban Development (HUD), 2015) putting them at risk for higher rates of communicable and non-communicable diseases, multiple co-morbidities, and higher mortality rates (Schanzer, Dominguez, Shrout, & Canton, 2007). Additionally, homeless individuals tend to overutilize emergency rooms, underutilize primary care services, and require longer lengths of stay at higher acuities as inpatients (O’Toole et al., 2010).

Rates of homelessness have remained consistently higher in the veteran population than non-veteran populations. With over 21 million veterans living in the U.S today, they make up 6.7% of the population (United States Census Bureau, 2015). However, veterans make up 11% of the adult homeless population in the U.S. (Department of Housing and Urban Development (HUD), 2105). Veteran status, older age, and black race are all significantly and independently associated with risk of homelessness among men and women (Fargo et al., 2012). Additionally, male veterans are almost 50% more likely to be homeless as male non-veterans in the general population (Fargo et al., 2012). Homeless veterans are at a high risk of compromised health status requiring more specific health needs and a greater understanding by healthcare providers. Therefore, the purpose of this paper is to provide in-depth knowledge to nurses and other healthcare providers about the lives and health status of homeless veterans.

**Homelessness Defined**

Various government organizations and stakeholders define homelessness differently. Universally, the contemporary view of being homeless has to do with housing status and is
linked to a state of extreme poverty. The United States Department of Health and Human Services (HHS) defines homelessness more broadly as an individual who lacks housing or whose primary residence during the night is a facility that provides temporary living arrangements. A homeless person may live on the streets or in any other non-permanent situation (i.e. car, abandoned building). HHS also considers those to be homeless who are unable to maintain their own housing situation and may be forced to live “doubled-up” with family or friends (National Healthcare for the Homeless Council, 2014).

The United States Department of Housing and Urban Development (HUD) approaches homelessness from a more limited viewpoint by defining it as individuals who lack a fixed, regular, and adequate nighttime residence or whose primary residence is a place not ordinarily used for routine sleeping accommodations for human beings. The United States Department of Veteran Affairs (VA) defines homelessness very similarly to HUD by including those who lack a fixed, regular, and adequate nighttime residence. However, HUD and VA do not consider those who are “doubled-up” to be homeless. Health centers and organizations funded by any of the previously mentioned government organizations or others will generally utilize either the HUD definition of homelessness or the definition of the funding agency.

**Antecedents of Homelessness**

Homelessness is generally caused by the inability to pay for housing. Multiple factors contribute to this inability to pay including both economic and personal. Causes of homelessness can be classified into macro and micro level factors (Lee, Tyler, & Wright, 2010). Macro level causes create a broader view that include the overall economic conditions of the country including a decrease in the median household income, rates of unemployment, lack of fair market housing or an increase in fair market rent, and policy shifts that decrease spending on
public assistance (National Alliance to End Homelessness, 2013). Other macro level risk factors could be contributed to environmental causes such as natural (i.e. tornado, hurricane) or man-made disasters (i.e. war) that could force people into a state of homelessness. On the other hand, micro level factors include those occurring at the individual or family level such as lack of education leading to low skilled labor, altered physical and/or mental health status, or a difficult family situation such as those who come from foster care, experience domestic violence, or incarceration (Lee et al., 2010).

While the previously discussed antecedents of homelessness also apply to homeless veterans, because of their military experience and specialized training, additional risk factors are present. In a landmark study conducted by Rosenheck and Fontana (1994), four predisposing factors were found to increase the risk of homelessness among veterans including: low levels of social support, psychiatric disorders, substance abuse disorders, and being unmarried. Social isolation and lack of social support after returning to civilian life are two of the most significant preceding indicators (Nyamathi et al., 2004; Rosenheck & Fontana, 1994). Also, their extremely specialized military training may not translate into the civilian workforce and further solidify their unemployment status (Nyamathi et al., 2004).

**Health Status of Homeless Veterans**

Homeless populations in the U.S. are impacted by the burden of disease more heavily than other populations. They experience higher mortality rates (Schanzer et al., 2007), have higher rates of acute and chronic medical illness, have greater unmet health needs (Baggett et al., 2010), and have higher rates of emergency visits and acute hospitals stays at a greater cost (Kushel, Vittinghoff, & Haas, 2001). Veterans contend with more social issues and with a complex health status consisting of multiple physical and mental health co-morbidities that all
contribute to their homeless position. They are also more likely to have greater diagnosed medical conditions than the general population (Agha, Lofgren, VanRuiswyk, and Layde, 2000). When comparing homeless male veterans to homeless male non-veterans, significant differences in health status are found. Looking at the characteristics, comorbid conditions, and usual sources of care it was found that homeless male veterans were significantly more likely to report a chronic medical condition, two or more mental health conditions, and less likely to access community health centers for care than male non-veterans (O’Toole et al., 2003). Additionally, PTSD and hepatitis/cirrhosis were reported at higher rates among homeless veterans than homeless non-veterans (O’Toole et al., 2003).

Differences are also present when focusing specifically on the veteran population. Homeless VA Medical Center (VAMC) emergency department users are more likely to be younger, have hepatic disease or HIV/AIDS, and more likely to be diagnosed with a broad range of psychiatric disorders including substance abuse and schizophrenia than their non-homeless veteran counterparts (Tsai, Doran, & Rosenheck, 2013). As in the general population, having housing is linked with increased health status and decrease cost of healthcare services among the veteran population. One study found that by supporting permanent housing, not only do rates of homelessness decrease, but also associated health care utilization rates, cost of emergency care, and inpatient hospitalizations (Montgomery, Hill, Kane, & Culhane, 2013).

Based upon these findings, we can conclude that not only do veterans have poorer health status than non-veterans, but also that homeless veterans have even poorer health status than housed veterans. Additionally, social isolation, lack of health care service utilization, and the basic lack of housing contribute to their poor health status. Since evidence shows that homeless veterans are more likely to use the emergency department, an opportunity exists for nurses and
other healthcare providers to provide specialized services and comprehensive discharge planning to this unique population.

**Homeless Veterans and Chronic Disease**

Homeless veterans face both chronic physical and chronic mental health disorders that are multifactorial in nature and do not necessarily fit into any defined health framework. When examining these multiple health problems, there have been attempts made to categorize identified co-morbidities into certain groups depending on their pattern of occurrence in this unique subpopulation. By making these distinct categorizations nurses, healthcare providers, advocates, and other stakeholders can better understand what services might be appropriate for each group and identify ways to achieve cost effective preventative care rather than retroactive treatment (i.e. inpatient hospitalizations). Three notable studies (Goldstein, Luther, Jacoby, Haas, & Gordon, 2008; Goldstein, Luther, Haas, Appelt, & Gordon, 2010; Tsai, Kasprow & Rosenheck, 2013) looked to identify these types and patterns of medical and mental illness found in homeless veterans.

Goldstein et al. (2008) not only identified patterns of illness, but also looked to determine if risk profiles based on sociodemographic characteristics and duration of homelessness could be related to the identified illness patterns. Results showed four unique clusters that best fit the data including: (1) oral, dental and orthopedic disorders (dental/orthopedic problems); (2) eye problems, hypertension, cardiovascular and gastrointestinal disorders (generalized illness); (3) hepatic and gastrointestinal disorders (hepatic disorders); and (4) hypertension with secondary elevations of cardiovascular and pulmonary disorders (cardiopulmonary disease). Additionally, over 75% of the cases in each cluster also had at least one psychiatric disorder (Goldstein et al., 2008).
In another study by Goldstein and colleagues (2010), a configuration similar to previous findings resulting in a multifactorial pattern rather than the presence of single disorders among homeless veterans was found. A five-factor solution showed: (1) cardiopulmonary disease without significant psychiatric disorder; (2) mood disorders associated with orthopedic, eye and gastrointestinal problems; (3) stress related disorders; (4) substance use or addiction disorders; and (5) psychosis among homeless veterans. Additionally, it was found that married participants were more likely to score lower on the addiction factor than unmarried participants.

The final study examined risk and need profiles of homeless veterans and evaluated how they were referred to certain homeless service programs within the VA system. Researchers examined data from the VA’s Homeless Operations Management and Evaluation System (HOMES), which was designed in response to the current administrations goal to end veteran homelessness. This included data from 142 sites nationally and 120,852 veterans (Tsai, Kasprow, et al., 2013). Four classes of risk were identified and then compared to sociodemographic characteristics among the participants. The four classes identified include: (1) relatively few problems; (2) dual diagnosis; (3) poverty, substance abuse and incarceration; and (4) disabling medical problems. The group identified as having relatively few problems was significantly younger, more likely to be female, more likely to be married, and had more years of education than the other groups. The disabling medical problems group was most likely to have a chronic medical condition, be older, and most likely to be unemployed in the past three years. The veterans categorized into the dual diagnosis group had the highest rates of substance abuse disorders, psychotic disorders, and psychiatric hospitalizations (Tsai, Kasprow, et al., 2013). Identification of these four groups contributes to a better understanding of how homeless veterans differ from one another and what services might be the most appropriate for each group.
In each of the three studies attempts were made to stratify the many physical and mental health problems that homeless veterans face into various categories or groups. Even though each study identified four or five differently named classifications, there remained significant similarities across the groups. Working to identify the complex health patterns of homeless veterans creates the need for a diverse approach in services for homeless veterans in both the VA system and the community. Additionally, broader knowledge about common comorbid associations and a better understanding of the high correlation of substance use disorders with the majority of problems among homeless veterans will help to enhance the design and delivery of health programs. This is a significant challenge to nursing and other healthcare professionals to address the multidimensional and complex needs associated with this population.

**Homeless Veterans and Emergency Department Utilization**

Individuals who are homeless not only have more complex health care needs than those who are housed, but they also have higher hospitalization rates and emergency department (ED) visits than the general population, often using this as a primary source of care due to its ease and accessibility. Because veterans have access to more personal resources than other homeless subpopulations, and having health insurance does not necessarily play a role in their care (VA medical system), more significance can be placed on their use of emergency departments as a primary source of care (Tessler, Rosenheck, & Gamache, 2002).

One of the most significant sociodemographic characteristics found among a sample of those who use the VA emergency department was homelessness (Doran et al., 2013). Specifically, homeless veterans were 6.6 times more likely to be amongst the most frequent emergency department users. Other factors strongly associated with emergency department use include schizophrenia, opioid prescription use, and heart failure (Doran et al., 2013). Another
study showed that homelessness was ten times higher in the sample of veterans treated and released from emergency departments and was a predictor of repeat visits and hospitalizations (Hastings et al., 2011). Homeless veterans also face challenges with obtaining medications, arranging outpatient and follow-up care, and securing transportation (Hastings et al., 2011). Additionally, their higher severity of illness and lack of social support places them at an increased risk of return to emergency departments.

The general characteristics of homelessness increase the likelihood of an individual using an emergency department for health care, rather than some other source (i.e. ambulatory care, primary care). The frequency with which the homeless visit emergency departments is also higher than their housed counterparts. This overutilization of emergency departments by the homeless contributes to overcrowding, decreases continuity of care, and compromises patient safety (Trzeciak & Rivers, 2003). There is a significant need for better health care management of the homeless in the emergency department including more focused screening tools, timely follow-up care, and aggressive case management to reduce high recidivism rates and ultimately overcrowding.

**Barriers to Care for Homeless Veterans**

For homeless individuals, health care can become a compromising factor. The basic human requirements of food, shelter, and safety are often placed at the forefront in regards to daily needs rather than health associated needs. However, additional patient-related and institutional-related barriers to health care exist for the homeless, and explicitly homeless veterans, making access to healthcare and care management that much more problematic. Physical health, mental health, substance abuse problems, and self-esteem issues are major obstacles to overcoming homelessness for veterans (Applewhite, 1997). Furthermore, veterans
who experienced combat duty while serving in the military were more likely to report experiencing psychosocial and psychiatric problems that preclude them from escaping homelessness. Veterans also feel there is a stigma associated with being homeless in that the public blames them for their life circumstances. Additionally, the VA service delivery system can often be perceived as confusing, insensitive, and full of bureaucratic obstacles (Nyamathi et al., 2004). Ultimately, improvements in service delivery are needed including more services to help with reintegration into civilian life in order to become more productive and make positive contributions to society (Applewhite, 1997).

One significant study looked at the co-location of services for homeless veterans in one VA health care system (Greater Los Angeles) in order to reduce patient-related barriers and institution-related barriers (Blue-Howells, McGuire, & Nakashima, 2008). Many homeless veterans lack needed transportation to multiple scheduled appointments and those appointments were scheduled at various times and on various days. A new program offered the same day co-located mental health, medical, and homeless services with a coordinated intake system. When evaluating this new innovative system, continuity and rapidity of care were found to be promoted by the creation of an access center for homeless veterans that conducted screening, assessment, and referral to all services on a one-stop basis. The program reduced patient-related barriers such as transportation (one-stop service) and lack of health insurance (VA system) while also reducing institution-related barriers such as service fragmentation (coordinated intake system). The results showed that the unique blending of traditional primary care services with homeless care lead to quicker services for the homeless veterans and improve access to medical care, mental health, and social services (Blue-Howells et al., 2008). It also reduced the need for
homeless veterans to explain their situation to multiple care providers producing feelings of weakness and discrimination.

The patient-related barriers, institutional-related barriers, and VA specific barriers discussed all have an effect of the healthcare management of homeless veterans. Even though homeless veterans may have access to more healthcare resources than the general homeless population because of their veteran status, many do not necessarily utilize the VA system in order to obtain health care services (Agha et al., 2000; Nyamathi et al., 2004). Often a homeless veteran’s own perception and experiences within the military cause the largest barrier to receiving needed care. Creating a unique health care system for homeless veterans that combines their primary care treatment with homeless care services (Blue-Howells et al., 2008) is one way to potentially reduce the various barriers to care that they face.

Models of Care for Improving Health of Homeless Veterans

After defining veteran homelessness, examining the health status of homeless veterans, where they access care, and barriers to care, it is important to examine what research recommendations have been made that demonstrate innovative models or programs of care to improve the health of homeless veterans. Recommendations from successful studies and programs across the United States can provide a constructive contribution to reducing this phenomenon and help educate nurses and other healthcare professionals involved in the care of homeless veterans.

Two different studies (McGuire, Gelberg, Blue-Howells, & Rosenheck, 2009; O’Toole et al., 2011) looked at new models for providing integrated health care to homeless veterans. The first study (McGuire et al., 2009), investigated whether a demonstration clinic integrating homeless, primary care, and mental health services for homeless veterans with serious mental
illness or substance abuse would improve medical care access and physical health status. Outcomes indicated that veterans in the integrated care group received primary care appointments more quickly, had higher levels of preventive care and lower levels of emergency department use than veterans in the traditional group. These findings suggest that an integrated model of care can improve the quality of medical care for the homeless and particularly the homeless with serious mental illness.

The second study compared outcomes between a population-based patient-centered medical home (PCMH) model of care and a traditional patient care approach (O’Toole et al., 2011). The PCMH model used seven core principles to provide population specific care. These care principles include: patient driven, team-based, efficient, comprehensive, continuous, honest and respectful communication, and coordination across all aspects of the health care system (O’Toole et al., 2011). Findings showed that enrollment in a population-specific PCMH can increase participant’s engagement in access to primary care and improve their chronic disease monitoring and management outcomes. By tailoring the PCMH model to the specific needs of a vulnerable population (i.e. homeless veterans) there is the potential for improvement of care and increased utilization of care resources, which improves overall health outcomes and quality of life (O’Toole et al., 2011).

Another study using a population-specific design to deliver primary care services compared homeless patients’ experiences of care in healthcare organizations that differed in their degree of primary care service delivery (Kertesz et al., 2013). Patient experiences were compared at five different sites that varied in their degree of primary care services with results indicating that tailoring primary care service delivery to the homeless is associated with superior experience by the patients and results in improved perception and cooperation between providers and
patients. Ultimately, an unfavorable experience is more common at mainstream sites where no population-specific tailoring of services occurs (Kertesz et al., 2013).

A final study compared service use among the homeless and non-homeless veterans newly enrolled in a medical model home service delivery system during a 6-month period (O’Toole et al., 2013). Homeless veterans were enrolled in the homeless-specific patient-aligned care team while the non-homeless were enrolled in the general population patient-aligned care team. Homeless veterans were compared with non-homeless veterans in regards to their medical health, mental health, and substance abuse conditions. Initially, 48% of the homeless cohort accessed the emergency department for care. However, results showed that the homeless who utilized primary cares services were more likely to have no emergency department use in the latter 3 months of the study. By providing an alternative setting with enhanced access and a population-tailored approach (homeless-specific), a reduction in expensive emergency department visits and unmet health needs of vulnerable populations can occur (O’Toole, et al., 2013).

All studies suggest the need for a comprehensive population-tailored approach to providing healthcare to homeless veterans. Co-locating medical care, psychiatric care, and homeless services results in improved access to healthcare and social services in a timelier and efficient manner. Using integrated primary care models provide optimal continuity of care for veterans’ multiple co-morbidities and potentially specialized situation. The majority of these recommendations are tailored to the VA system, but can also be applicable to other civilian healthcare systems. Since the VA is nationwide, it is able to represent our country’s diverse population and the various frameworks can simply be modified to fit the needs of other healthcare institutions. The most noteworthy recommendations to improve the health of the
homeless, require combining resources in one location and using a comprehensive integrated primary care approach that can be generalizable across all homeless populations. Moreover, working to provide continuity of care for homeless veterans may increase their own personal engagement in their health and consequently improve their overall quality of life.

**Implications for Public Health Nursing**

The profession of nursing provides frontline delivery of care to the homeless in hospitals, clinics, and countless environments across the public health sector. Nurses are often the first to interact with homeless individuals and therefore have an increased ability to influence their healthcare outcomes and overall quality of life. Since nursing often utilizes a more holistic approach to healthcare delivery, there is a greater potential for understanding and ultimately impact on the multiple medical, psychiatric, and social needs that homeless veterans face. Recommendations from the literature include comprehensive discharge planning from the emergency department (Tsai et al., 2013), increasing social support to prevent repeat emergency department visits and inpatient stays (Hastings et al., 2011), and utilizing a population-based approach to providing primary care services to homeless veterans (McGuire et al., 2009). The nursing profession is highly capable of implementing these recommendations and collaborating with others in order to promote health, reduce disparities, and improve the life of veterans who are homeless.

**Conclusions**

Homeless veterans face numerous barriers to receiving suitable healthcare services. They have higher rates of physical illness, mental illness, and substance abuse. They are also more likely to utilize emergency rooms, be admitted to the hospital at a younger age, and have longer lengths of stay at a greater cost (O’Toole et al., 2010). All of these factors lead to a higher age-
adjusted mortality rate for the homeless, (Adams et al., 2007) which further increases the impact of the problem of homelessness on the public health domain. Additionally, veterans suffer from higher rates of chronic disease and co-morbidities than the general population (Goldstein et al., 2008). This creates an additional burden on homeless veterans because they are competing for resources such as shelter, food, and safety while potentially battling a chronic health condition.

In order to improve the overall health of homeless veterans, best practice recommendations from the literature can be used by the profession of nursing and other healthcare providers to improve the public health framework.
References


A Theory of Chronic Disease Management
Among Male Homeless Veterans

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Abstract

Purpose: The purpose of this study was to develop theory to describe the process by which homeless veterans manage their chronic health problems. In the United States, over 550,000 people will experience homelessness on any given night. Of these over 11% are veterans, many of whom suffer from at least one chronic disease. Homeless veterans face numerous barriers to receiving optimal healthcare and often overutilize emergency departments and underutilize primary care services.

Design: This qualitative study used grounded theory methodology with a sample of homeless veterans from one large Midwestern city in the US.

Methods: Participants included male veterans who were homeless with at least one chronic disease. Recruitment was completed at a VA emergency department, a homeless shelter, and a soup kitchen. Audio recorded interviews were verified and then coded by a research team using line-by-line, substantive, and finally theoretical coding.

Findings: Semi-structured interviews with 32 participants resulted in a theory describing and explaining four different ways homeless veterans manage their chronic health problems amidst the competing demands of daily survival.

Conclusions & Clinical Relevance: In order to end veteran homelessness, it is vital that healthcare providers and policy makers first seek understanding from the individuals living this experience. The findings from this study will help guide the future delivery of healthcare to homeless veterans including how the profession of nursing can best care and support this vulnerable population in hospitals, clinics, and across the public health sector.

Key words: homelessness, veterans, chronic disease, theory
In the United States over half a million people are homeless on any given night (Department of Housing and Urban Development (HUD), 2015). Homelessness is associated with poorer health status due to the difficulty of maintaining health while attempting to satisfy the basic human needs such as food, shelter, and safety. These individuals suffer from higher rates of communicable and non-communicable diseases, higher mortality rates, and multiple co-morbidities (Schanzer, Dominguez, Shrout, & Caton, 2007). They often overuse emergency services, underuse primary care services, and require longer lengths of stay as inpatients compared to the general population (Kushel, Vittinghoff, & Haas, 2001; O’Toole et al., 2010).

Veterans of military service are overrepresented in the homeless population, accounting for 11% (or 48,000) of homeless adults (436,000) (HUD, 2015). Rates of homelessness have remained consistently higher in the veteran population, with male veterans 50% more likely to be homeless than male non-veterans (Fargo et al., 2012). Veterans have an increased risk of compromised health status because of their greater representation among this vulnerable population.

Homeless veterans suffer from higher rates of chronic disease and co-morbidities than their non-veteran counterparts (Goldstein, Luther, Jacoby, & Haas, 2008) with over half suffering from at least one chronic health condition (Fargo et al., 2012). Physical and mental disorders experienced by homeless veterans are heterogeneous and do not necessarily fit any defined health framework. Their complex pattern of health contains components of both chronic medical and chronic psychiatric health problems. Common medical problems experienced by homeless veterans include diabetes, hypertension, cancer, chronic obstructive pulmonary disease (COPD), and heart disease (Goldstein, Luther, Haas, Appelt, & Gordon, 2010). Common psychiatric problems include depression, bipolar disorder, post-traumatic stress disorder (PTSD), schizophrenia, and substance abuse disorders (Goldstein et al., 2010; Tsai, Mares, & Rosenheck,
2012). Other illnesses such as ulcers, frostbite, and malnutrition can be attributed to the general aspects of homelessness and exposure to the elements. Given the large number of homeless veterans, there is a significant challenge to healthcare professionals, and the general public health domain to address the multidimensional and complex health needs of this population.

Barriers to optimal healthcare among homeless populations are widely documented. Lack of affordable healthcare (Tsai & Rosenheck, 2014), service fragmentation among healthcare institutions and providers (Blue-Howells, McGuire, & Nakashima, 2008), and transportation all create obstacles to care (Nyamathi et al., 2003). Other barriers exist for veterans including a complicated eligibility process within the VA system causing great difficulty for veterans to navigate (Blue-Howells et al., 2008) and therefore, seen as a stressor rather than a benefit. In addition, a common misconception is that all health care at the VA is free for veterans but this is not necessarily true. Services may still require co-pays and be billable depending on a veterans eligibility status and insurance. Finally, veteran’s own perceptions of their health can influence their ability to access care. Utilizing health care services can be perceived as a weakness, which is sharply contrasted with their military way of life in which they are perceived as strong (Gilliss, 2010).

In 2009 President Obama, along with the former VA Secretary Eric Shinseki, set a goal of ending chronic and veteran homelessness by focusing on six areas including: education and outreach, treatment, prevention, housing and supportive services, employment and benefits, and community partnerships (U.S. Interagency Council on Homelessness, 2010). This comprehensive plan further highlights the need to address national homelessness among the veteran population and make positive contributions to reduce this phenomenon. These combined factors create multiple questions about the lives and experiences of homeless veterans living with
chronic diseases and contribute to the foundation for this study. The goal of this grounded theory study was to develop a theory to describe and explain how veterans who are homeless manage their chronic health problems. The research question was: What is the process by which homeless veterans manage their chronic health problems?

**Methods**

Grounded theory methods were used to answer the research question in this study (Glaser & Strauss, 1967). Glaser and Strauss successfully merged their philosophical traditions of positivism and pragmatism with influence from Herbert Blumer’s (1969) theoretical concept of symbolic interactionism to develop theory that is “grounded” in the research data and able to explain real world phenomenon (Glaser & Strauss, 1967). The population of veterans in this study shares the same fundamental problem of being homeless, while also suffering from some chronic disease. This is a “real world” phenomenon as described by Glaser and Strauss (1967) that can be explained by data generated through the grounded theory process. The focus of this inquiry was to determine how homeless veterans resolve the problem of disease management through a social or psychological process. Homeless male veterans with at least one diagnosed chronic health problem were recruited. Men make up 91% of the homeless veteran population while females make up 9% (HUD, 2015). Homeless female veterans were excluded from the study because of their low representation and therefore low accessibility rate.

**Recruitment**

Institutional Review Board and VA Research and Development Committee approval was obtained. Detailed study announcements were posted at three locations in one large Midwestern city including a VA medical center emergency department, an emergency shelter, and a soup kitchen. Additionally, the principal investigator made visits to the soup kitchen during meal
times and to the shelter during bimonthly veteran-specific meetings for face-to-face recruitment. All potential participants were screened for inclusion and exclusion criteria, provided with detailed information about the study, and any questions or concerns were answered. Written informed consent and demographic information was obtained prior to interviews.

**Data Collection**

All interviews were conducted by the principal investigator and occurred in a private room at each location. The principal investigator is an experienced emergency department nurse who has worked extensively with veterans and the homeless for the past nine years. Participants were interviewed one time and encouraged to tell their stories and experiences about managing their chronic health problems while also being homeless. The interview began with open-ended questions and more specific questions were asked as the theory began to emerge from the data. This type of interview process follows the strategies of grounded theory development. Interviews were audio-recorded and field notes were taken during each interview reflecting on the environment, the participant’s behavior, and the context of each interview. Each participant received a $35 gift card to a large chain grocery store for compensation of their time.

**Sample**

Purposive sampling at the three locations was initially used to recruit homeless male veterans. This sampling method is consistent with grounded theory method and allowed the principal investigator to deliberately select participants who met the inclusion criteria of being a homeless male veteran with at least one chronic disease. Participants were recruited over a six-month period and ended as saturation occurred and no new information was discovered (Glaser & Strauss, 1967). The systematic collection of data, sampling, and analysis occurred simultaneously and then theoretical sampling was used to collect further information from
remaining participants to enrich the developing theory. Through the use of comparative analysis, the initial participant demographics and interviews showed that the majority of recruited veterans were from the Vietnam/Post-Vietnam era and thus their experiences with chronic disease and homelessness were different than veterans from the current war in Iraq and Afghanistan \( (n=2) \). Therefore, the principal investigator and research team determined that the remaining veterans recruited should only be from the Vietnam/Post-Vietnam era \( (n=32) \).

The final sample included 32 homeless male veterans with at least one diagnosed chronic health problem. All participants who agreed to participate signed the informed consent and were interviewed. The majority of the sample was African American \( (n=23; 72\%) \) while the remaining participants \( (n=9; 28\%) \) identified as Caucasian. Veterans from four military branches made up the sample including the Air Force \( (n=4) \), Army \( (n=18) \), Marines \( (n=5) \), and the Navy \( (n=5) \). Years of military service varied with a range from 33 days to 20 years \( (\text{mean}=5 \text{ years}) \). The number of episodes of homelessness among the participants ranged from 1 to 8 \( (\text{mean}=3 \text{ episodes}) \). Most of the participants lived in a shelter or short term rehabilitation center \( (n=28) \) while the remainder were staying in their car, on the streets, or in abandoned buildings \( (n=4) \). The most common chronic diagnoses found among the sample include chronic pain \( (n=17) \), depression/anxiety \( (n=13) \), hypertension \( (n=15) \), substance abuse \( (n=20) \), and post-traumatic stress disorder \( (n=11) \). Additionally, 75\% \( (n=24) \) of the study participants indicated use of the VA healthcare system and over half the veterans interviewed \( (n=19) \) reported having a primary care provider either within the VA system or the community.

**Data Analysis**

Interviews were audio-taped, transcribed, and verified by the principal investigator. All data were stored behind the protected VA firewall and were de-identified to ensure privacy and
confidentiality. The qualitative software MAXQDA (2015) was used to assist with data analysis. Data were analyzed by the principal investigator, a team of two experts in qualitative research, and one BSN honors nursing student who is in the military. Substantive coding, including line-by-line coding and selective coding, was initially used (Glaser, 1978). Line-by-line coding was completed by the principal investigator and one member of the research team on the first four transcripts. Words, phrases, and sentences were carefully examined and then compared between other transcripts for similarities and differences resulting in the development of sixteen initial categories. Selective coding was then used to analyze the remaining transcripts and place all data in the defined categories. During selective coding, the team collapsed codes and expanded codes as the theory began to emerge and a higher level of coding, theoretical coding, was then initiated. Theoretical coding allowed for increased abstraction of the data set resulting in the development of the emerging theory. Comparative analysis was used throughout the process, allowing the principal investigator and the research team to ask multiple questions of the data and thereby determine the trajectory of the data set.

The concept of pursuing the mission was used by the research team to metaphorically describe homeless veterans’ efforts in this study to manage their chronic health problems. The term “mission” is a widely used military term associated with performing a specific military task or duty and the action to be taken (Department of Defense, 2016). As theoretical coding was being conducted, the concept of pursuing the mission was broadened by the principal investigator and the research team. The transcripts were re-examined for evidence of various ways that veterans use to pursue their mission of health care management resulting in the final modifications of the theory.

Multiple methods were used in order to enhance rigor of the study findings.
Trustworthiness or validity of the study was ensured through the use of a research team. Inter-subjective agreement among the team members ensured the credibility of the findings along with the use of direct quotes from participants (Denzin & Lincoln, 2011). Transferability was ensured by providing an adequate description of the sample and dependability of the data was fulfilled by verification of the audiotapes by the principal investigator against the transcripts. Additionally, confirmability was ensured in this grounded theory study by the creation of an “audit trail” including field notes taken during interviews and written memos that described the theoretical decisions and ideas that came from the data (Denzin & Lincoln, 2011).

**Results**

The way that veterans who are homeless manage their chronic health problems depends on the manner in which they approach their health, the resources that they have access to, and how they choose to utilize those resources. The concept of “pursuing the mission” is used to describe and explain the four different ways homeless veterans manage their chronic health as found in the data (see Figure 1).

![Diagram](image)

**Figure 1**: Pursuing the mission: four ways homeless veterans manage their chronic health problems.

**Deferring the Mission**

Veterans who were “deferring the mission” (n=4 participants) are defined as those not managing their chronic health problems. They have not taken the steps to actively engage in the process of obtaining positive health outcomes and often experience multiple barriers that cause deferment of the health mission. These include logistical barriers such as unemployment and lack
of transportation, but also personal barriers such as lack of trust in the system, mental health issues, and/or substance abuse. One participant described transportation barriers affecting his ability to access the hospital in order to get his medications:

It's very difficult, because once I lost my job, it affected me as far as having bus fare to get back and forth, because my feet are bad too and sometimes I would have to walk…that really affects me, because I have to walk all the way to get my meds.

Veterans described lack of trust in health care providers and agencies as a reason they defer management of their health problems. They provided descriptions of being treated negatively at times by staff and healthcare professionals because of their life situation. One negative experience can prevent any future attempts at accessing healthcare. One participant described attempting to go to a health clinic and the manner in which he was treated:

It was frustrating. People were unprofessional, disrespectful. They had no idea what they were doing. They were under-trained and underpaid and it showed and I see these type of things, plain as day, but if you somehow show them that you see that, then they get defensive and then you really got a problem.

Another participant described how the general condition of being homeless affects your mental and physical health, increasing the deferment of the mission:

You can't stay as clean as you use to when you're homeless, you're stressed out, you don't know exactly who you can turn to or where you can get your medicine, it's difficult when you're homeless, I get depressed sometimes and then I procrastinate, you're out there, you know and your mind could be on some other stuff, you really would like to take care of the situation right then and there, but it's hard because you're trying to get yourself together, get a job and everything, get housing, so it's more than one thing to think about.
It’s not the same as being in a structured environment and when you're in a structured environment, you got more assets that can help you.

One participant described a continuous cycle of attempting to maintain sobriety and hold down employment but then falling back into addictive behaviors with negative results:

I gotta get my medicine and everything first, right now I'm can't go to work like this, dizzy, lightheaded spells and then it got worse and actually last week it's gotten worse…I do have a bad marijuana addiction because I got stressed out and I turn to drugs.

Additionally, there can be a lack of commitment and motivation to managing their health problems which results in no active engagement in the healthcare system, no use of primary care services, or any health services at all. Veterans who are deferring the mission often speak of feeling depressed, hopeless, taken advantage of, and have low self-worth.

Some people took advantage of me because I suffer from mental illness. They took advantage of me and took my money. They tried to swindle me, I lose in the end.

Homeless veterans may defer the management of their chronic health problems for multiple reasons. All participants in this category were unable to begin consistent active engagement in their healthcare. They described personal and logistical barriers that obstruct their ability to manage their diagnosed chronic diseases and pursue positive health outcomes.

**Exploring the Mission**

Homeless veterans categorized as “exploring the mission” (n=12 participants) are defined as those who are just beginning to discover and become aware of their health mission. These participants describe initial attempts at active engagement in the healthcare system. Frequently, these individuals are aware of their health problems and try to deal with them as best as they can on a day-to-day basis. They are slowly taking the needed steps in order to successfully manage
their chronic health problems while still facing significant barriers. One participant who recently entered a substance abuse treatment facility for homeless veterans described his initial thoughts about his health progress, and his plans for moving forward:

Right now, I'm taking everything day by day. My goal is to end the homelessness, stop my alcoholism and to live a productive life.

Unfortunately, it can be difficult for these veterans to stay on a healthy track because they are just beginning the mission. Many described experiencing turning points in their life where they knew that they could not keep up with the unhealthy lifestyle they were living. A participant described his feelings of loneliness and desperation and how that helped to turn his life around and served as a motivator to seek treatment for alcohol abuse:

The desperation that I was in my last three year run, the desperation, the feeling of hopeless that I was in, is a feeling that I never want to feel again. I don't want to feel that no more, you know just a feeling that I felt. This last episode of homelessness was rough.

Participants who were “exploring the mission” also describe becoming more self-aware in regards to their health. They are more aware of the need to take care of their health problems and often attempt to seek care. One participant described realizing the need for management of his health problems and how that influenced his ability to take control of his life:

While I was in the streets homeless, I was really concerned with myself, with my health problems. I do have depression, so I would drink to deal with the depression…and I did not worry about my health problems, my high blood pressure or anything, I would just not worry about it, whatever happens, happens. Since I’ve been in rehab it has become a concern. I’m not drinking anymore and I’ve been dealing with my depression. I am concerned about my health now.
Veterans who are exploring their health mission may not be actively engaged in primary care services, but they are beginning to seek treatment for their health problems and gain a better understanding of their health and the system.

**Embarking on the Mission**

Homeless veterans who are “embarking on the mission” (n=13 participants) of chronic health management are defined as adapting and adjusting to the management of their chronic health problems. They have made the decision to engage in the healthcare process and learn about the steps needed to maintain their health such as navigating the healthcare system. Typically, they have established primary care services; however, they may not always make appointments or follow-up when appropriate. Additionally, these participants are learning to trust the system, have more self-motivation in regards to their health, and are frequently future oriented. One participant described they way he managed his medication schedule while being homeless and moving often:

> What I would do is get my medications for blood pressure, depression, and anxiety. I would get a three-month supply of medications, so that would hold me over and when that ran out, the VA would give me another three-month supply.

Other participants in this category described the importance of establishing a routine to help manage their lives and health. They also recognized the interrelated nature of their health and homeless status. When they are consistent with their medications and any special type of treatment needed (i.e. wound care), then they are able to concentrate on finding housing and food. However, if their health began to spiral out of control then they were less able to focus on the basic necessities. One participant described what it is like to be homeless and dealing with health issues even with access to health services and how quickly things can change:
I miss a lot of doctor's appointments because I don't have a secretary. When you're homeless you don't really have consistent situation, it's hard to organize your life, so sometimes I do miss doctor's appointments, which is bad… I'm just trying to organize things and sometimes you can have an appointment on such and such a day and then I think where I live and what my appointment is and how problematic it's gonna be to get there, so it might be easier where I'm at now but some day I might be living somewhere else and I go all through this cycle so long, even if I'm in a place where I feel like I'm secure, you always prepare for the worst.

Veterans who are embarking on the mission still constantly face barriers to health and housing, but they are also optimistic about their future and tend to think about continuing to flourish in their own personal lives and stay on a positive track. One participant described what it was like living in the shelter system and constantly being exposed to illegal substances but that it was no longer a problem for him:

I sit outside sometimes and them guys go back and forth, back and forth, smoking weed, then heroin and drinking, but I don't do any of that, you know, I haven't for 6-1/2 years. I'm proud of my clean time and I don't want to lose it, I just want to continue to grow.

Finally, these participants have a better understanding of their life situation. They know what they need to do to manage their health and what routine works for them. One veteran was able to vividly describe what he needed the most in order to manage his health problems:

Stability is one of the key building blocks of good health and stable health and if you have joy and happiness in your life, health wise you have a tendency to be more healthy than someone who is living on the street, worrying about somebody taking their stuff or being killed on a 24-hour basis, and you sleep in your own bed, you are behind a secure
area, and special people with PTSD tend to relax.

Those participants who are embarking on the mission of chronic disease management tend to have a more positive outlook on their health and lives because of the constructive choices they have made regarding their health. They are becoming more aware of their health needs and actively contribute to the health process to meet those needs.

**Embracing the Mission**

Homeless veterans who are “embracing the mission” (n=5 participants) are defined as those successfully managing their chronic health problems in their daily life. They are fully committed to their health and have integrated their health needs into their normal routine. These participants practice preventive behaviors, are more health literate, have taken full ownership of their health situation, and are willing to commit to what is necessary to maintain their health. They are also more health literate because they understand how to manage their diseases and what signs and symptoms to be concerned about. One participant, who is HIV positive, described his complicated medication routine as well as how he adapted to managing his medications while being homeless:

Two of my anti-retroviral medications I have to take with food and if I'm not at a place where food is available, in other words, I take it on a daily basis I just have to wait until mealtime or go to a soup kitchen that is available that is accessible and take it after that, I could never take it on an empty stomach because it's upsetting.

This participant understood the side effects of his medications and the importance of taking it with food. He was able to adapt his health routine while being homeless and still manage his HIV. Participants that embrace the mission continue to face barriers as all homeless veterans do. However, they are able to see past those barriers understand the whole picture of their health.
One participant had recent back surgery and was staying at a shelter. He ambulated with the assistance of a walker. He described the circumstances he faced just to get to an appointment from the shelter:

Well it was hard, trying to get back and forth to the hospital, you leave here at 7:30am, they don't pick you up until 3:30 or 4:00pm, so you got the whole day up there…then I had to go to UC, so I had to walk from the VA to UC, see the doctor over there and then walk back to the VA to catch the ride…that was a hard day that day because I walked and I could barely walk anyway, but I made it and just dealt with it.

These participants remain committed to their health and tend to stay positive and hopeful rather than focusing on the negative aspects. One participant with significant chronic health problems described how he maintains a healthy outlook on life despite being homeless:

Don't let the situation get you down, if you start letting stress and that get to you that's gonna cause you more problems and you just take it a day at a time and whatever is bothering you, do the best you can with it and if this is going on, maybe they can do something else, but the more you try to help yourself, the better off you're gonna be.

By “embracing the mission,” these homeless veterans have moved on from blaming others for their situation, have taken full ownership of their health problems, and frequently described experiences of hope and joy in their lives.

**Additional Findings**

An additional and unique finding from this study is that the sample of participants were from the Vietnam/post-Vietnam era. This characteristic was not part of the inclusion criteria, but merely a result of the target population from which recruitment took place at the three sites. The Vietnam/post-Vietnam War era was socially and contextually different than any later military
war era (i.e. Gulf War, Iraq/Afghanistan) and therefore may have played a significant role in the defining factors of each individual participants’ homelessness status.

**Discussion**

Outcomes from this study indicate that there are four ways in which Vietnam/post-Vietnam veterans who are homeless manage their chronic health problems. These four ways (i.e. deferring, exploring, embarking, and embracing) provide researchers, healthcare providers, and stakeholders with new knowledge that can be used to produce more effective interventions to treat the many chronic health problems that homeless veterans endure. Previously published literature is often lacking in theory based interventions that can result in patient-centered outcomes. Instead, focus is placed on identifying medically-based interventions that will affect homeless veterans as a group (Gabrielian et al., 2013; O’Toole et al., 2010; O’Toole et al., 2013). This stance utilizes a broad “one size fits all” approach and does not consider that members of this vulnerable population may manage their health in different ways. Narratives describing experiences of deferring the mission were very different than narratives of veterans who described embracing the management of chronic health problems. Not all veterans who are homeless are able to embrace the mission of managing their chronic health problems and may not be ready to actively engage in the healthcare process. These findings provide insight into an individualistic and patient-centered approach to treatment for homeless veterans. This in turn may increase their trust in the health system and provide opportunities for improved health engagement.

The sample of homeless veterans in this study have a high rate (n=27, 84%) of being diagnosed with more than one chronic health problem. This is consistent with an array of studies that indicate veterans have multiple co-morbidities, a complex pattern of health, and a higher
age-adjusted mortality rate (Adams, Rosenheck, Gee, Seibyl, & Kushel, 2007; Goldstein et al., 2008; Goldstein et al., 2010; Tsai et al., 2012). In the United States the cost burden of chronic disease is 78% of total health spending (Bodenheimer, Chen, & Bennett, 2009). This number is expected to increase over the next ten years due to the aging population and a rise in modifiable risk factors such as obesity. Additionally, there is a stronger correlation seen between those who fall below the federal poverty level and chronic disease compared to the general population (Bodenheimer et al., 2009). All of these factors result in an increased burden and financial strain on the U.S. healthcare system. Therefore, it is likely that veterans who are homeless and suffering from chronic disease are at a higher risk of developing more chronic illnesses as they age, thus requiring more healthcare services. The sample drawn from this study indicates high rates of chronic disease among an aging population which is consistent with the formerly discussed findings. The homeless veterans in this study were all from the Vietnam/post-Vietnam era and more likely to continue to develop chronic illnesses.

Moreover, findings from this study contribute to the extensive literature found on barriers related to healthcare that homeless veterans face (Blue-Howells et al., 2008; Goldstein et al., 2010). Study participants frequently identified transportation issues and service fragmentation in the healthcare system as major concerns. Although, as depicted in the study findings, those obstacles can play a major or a minor role in a veterans’ life, depending on the way homeless veterans manage their health problems. Barriers were discussed by participants who managed each of the four ways, but were often more prevalent in the deferring and exploring category. Those participants embarking upon and embracing management of their chronic health problems often took ownership of their health problems and did not provide justifications for not seeking health services or missed appointments. Additionally, those participants who accessed the VA
healthcare system ($n=24, 75\%$) often described more health and social-related resources to help better manage their chronic diseases and obtain permanent housing.

**Limitations**

A limitation of this study was self-disclosed veteran status. Participants were not asked to provided official identification or documentation of military status. However, due to the specific nature of the topic and the initial demographic information collected, it would be challenging for an individual to falsify any claims related to military enrollment and experience. Another limitation of this study is that participants were interviewed at one point in time. Homeless populations are historically nomadic and often cycle in and out of homelessness as evidenced by the multiple episodes described by the study sample. This study was able to only capture a single snapshot of the described experiences of homeless veterans living with a chronic health problem.

**Conclusions**

Chronic disease management among the homeless Vietnam/post-Vietnam veteran population is a complex phenomenon that was captured in this study with the central concept of pursuing the mission. In order for chronic disease-based interventions with homeless veterans to be most effective, they should focus on the four specific ways that they attempt to manage their health rather than one general approach. All participants in this study were able to describe in their interview one of the four different ways that they utilize to manage their health. This study helped to gain a better understanding of the health needs of a population that has honorably worked to serve and protect their country. Finally, study findings are able to confirm the need for continued work to improve the health and quality of life among this vulnerable population and ultimately contribute to the goal of ending veteran homelessness.
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Emergency Department Utilization Among a Sample of Male Homeless Veterans

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Abstract

Introduction: Homeless populations are historically high utilizers of the emergency department (ED) for low acuity issues that could be treated in more appropriate settings such as primary care. Veterans make up 11% of the homeless adult population and are often seen in community and Veterans Affairs Medical Center (VAMC) EDs. The purpose of this research study was to make recommendations to emergency nurses about the care of homeless veterans through the in-depth exploration of data from a larger qualitative study.

Methods: Grounded theory methodology provided the overarching framework for this research project. Structured interviews were conducted with 34 male homeless veterans with 25 referring to emergency department care. Veterans were recruited and interviewed from one VAMC ED, an all-male emergency shelter, and one soup kitchen. Text units about ED usage were extracted and compared from 25 recorded transcripts to identify categories.

Results: Three categories defining ED experiences among a sample of male homeless veterans was revealed from constant comparison of the resulting data. The three categories include: “dealing with it”, “having a voice”, and “valuing others”.

Discussion: The sample of homeless veterans in this study provided valuable first-person knowledge about their experiences receiving care in EDs. These results are consistent with previous research indicating that homeless populations are high utilizers of ED care; however, they often feel undervalued and lack of empathy from health providers. Emergency nurses are an important part of the ED healthcare delivery system for the homeless providing advocacy and much needed education about health problems and alternatives to ED care.

Key words: Homelessness, veterans, emergency nursing, high ED utilizers, health education
Homelessness is a common characteristic found among individuals accessing the emergency department (ED) for care (Mendelberg, Kuhn & Kohn, 2000) comprising over one million visits out of 136 million to the ED every year (Centers for Disease Control and Prevention (CDC), 2011). This places a significant economic, time, and space burden on EDs and the overall healthcare delivery system (Chambers et al., 2013; DiPietro, Kindermann & Schenkel, 2012; Kushel, Perry, Bangsberg, Clark & Moss, 2002). Often, those who frequently use the ED represent a small sample of the ED population but make up a large number of visits. These individuals use EDs as their primary source of care due to its ease and accessibility (Chambers et al., 2013; Chwastiak, Tsai, & Rosenheck, 2012; DiPietro, Kindermann & Schenkel, 2012).

A general definition of homelessness includes those who are sleeping outside and those who reside in homeless assistance programs such as emergency shelters or other temporary accommodations (National Alliance to End Homelessness, 2015). The homeless are at an increased risk for high emergency department usage because of their overall poor health status including high levels of chronic disease and morbidity (Schanzer, Dominguez, Shrout, & Caton, 2007), increased exposure to natural elements, high rates of injuries, and unmet health needs (Bagett et al., 2010). Homeless veterans are a noteworthy subpopulation of those who are homeless, representing 11% of the adult homeless population (HUD, 2015). The argument can be made that veterans have access to more health-related resources than other homeless subpopulations (Tessler, Rosenheck, & Gamache, 2002) due to their access to the Veterans Health Administration (VHA). However, only 40% of the nation’s 22 million veterans are registered for VHA benefits (National Center for Veterans Analysis and Statistics, 2014) and often choose not to access the Veterans Affairs (VA) system (Agha, Lofgren, VanRuiswyk, &
Layde, 2000; Goldstein et al., 2008; Goldstein et al., 2010). Instead they often opt to receive care in the community setting. Various studies (Doran, Raven, & Rosenheck, 2013; Hastings et al., 2011; Tsai & Rosenheck, 2013) indicate that frequent ED usage by homeless veterans remains a significant problem both within the VA system and in community settings.

Common characteristics and patterns of utilization of VA emergency departments among veterans has been previously examined (Doran et al., 2013; Hastings et al., 2011; Tsai & Rosenheck, 2013). The strongest sociodemographic correlation of VA ED use was found to be homelessness, with homeless veterans being more than six times likely to be amongst the most frequent ED users (Doran et al., 2013). Additionally, homelessness has been shown to be ten times higher in veterans who are treated and released from EDs and is a predictor of repeat visits and hospitalizations (Hastings et al., 2011). Homeless VA ED users are also more likely to use the ED repeatedly for non-emergent services and at higher rates than their housed veteran counterparts (Tsai & Rosenheck, 2013). The general characteristics of homelessness increases the likelihood of an individual using an ED for health care, rather than some other source (i.e. ambulatory care, primary care). In addition to creating an overcrowded and financially burdened environment, this high utilization of EDs by veterans who are homeless leads to a lack in continuity of care and puts all ED users at risk. Therefore, the purpose of this paper is to make recommendations and to educate emergency nurses and other stakeholders about effective approaches to delivering patient-centered care to homeless veterans in the ED.

Methods

Study Design

This study was designed to meet one specific aim from a larger qualitative grounded theory study (Glaser & Strauss, 1967) in which the overall purpose was to explore how homeless
veterans manage their chronic health problems. The specific aim addressed in this article was to explore the role of the emergency department in how veterans manage these health problems. Institutional review board and VA Research and Development Committee approval was obtained prior to any study activities taking place. Semi-structured interviews were audio-recorded and used along with field notes and memos to collect rich data. Each participant received a $35 gift card to a large chain grocery store for compensation for their time.

**Sample & Setting**

Male homeless veterans were recruited from three locations across one large, urban Midwestern city. Detailed flyers and on site recruitment occurred at one VA emergency department, a soup kitchen, and a large all-male emergency shelter. The transcripts of 34 participants in the larger study were analyzed for text units pertaining to ED visits in this study. Text units are defined as sentences, phrases, or stories (Draucker & Martsof, 2010) about homeless male veterans’ experiences in the ED. Twenty-five participants from the larger study discussed care in the ED. The average age was 56 years old and 17 participants identified as African American while the remaining 8 identified as Caucasian. Over 80% of the study population had more than one diagnosed chronic health problem with substance abuse (drugs and/or alcohol) being the most common. Emergency department utilization of the study sample is depicted in Table 1.

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<thead>
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<tbody>
<tr>
<td><strong>VA ED only</strong></td>
<td>13 participants</td>
</tr>
<tr>
<td><strong>Community ED only</strong></td>
<td>8 participants</td>
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<tr>
<td><strong>Both VA &amp; Community ED</strong></td>
<td>4 participants</td>
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*Table 1: Emergency department usage of homeless veteran sample*

**Data Analysis Procedures**
Interviews with participants were audio-recorded, transcribed, and verified by the principal investigator. Participants were asked to describe a time when they needed to seek treatment for their chronic health problems and to provide any advice or recommendations to health care providers working with homeless veterans with chronic health problems in the larger study. Emergency department usage was discussed in 54 text units. The grounded theory technique of constant comparative analysis was used to analyze the resulting text units. To ensure rigor of the study a research team worked together to analyze the data and reach consensus.

**Results**

Three categories were identified during the data analysis process that describe homeless veterans’ experiences when receiving care in an emergency department and their advice for healthcare providers. The categories include: “no other option”, “having a voice”, and “valuing others”.

**No other option**

Participants described feeling as though they have no place else to go except the emergency department to be treated for their symptoms. For example, one participant described being treated in the ED for diabetes:

I been to the emergency room, in the last two months I’ve been five times. They’re sick of looking at me, you know what I mean. My sugar was 688, they brought it down to 305 and put me out. I went back, my sugar was 650. The brought it down to 300 and put me out.

Participants tended to not think about the future but only remained concerned about being treated for their health problems at the current time because they felt that the future is beyond their
control. They did not have the energy or whereabouts to think about receiving follow-up care or making follow-up appointments. One participant described his typical treatment for his health problems:

I just go to the emergency room and they give me whatever medication I need and then when I start to feeling better I leave it alone until another episode. Follow-up after that, me not being stable, I don’t even think about that.

Participants described attempting to deal with the problems the best they can because they have no other option. They were often hopeful that they would remain healthy and not need any health services as one participant openly described:

As far as my health, I just try to take care of myself the best I can, you know there is nothing I can do, you know but deal with the situation…I can’t make myself better so I usually go to the emergency room doctor.

Participants used the ED when needed but were concerned about payment and even transportation issues. They described just trying to “deal” with the pain or health problem they face and not seek any treatment until the problem becomes unbearable and they have nowhere else to go. Additionally, they often lack the knowledge of how to obtain other available resources and the time needed to access those resources that can be used to better manage their care. For example, one veteran participant described how he uses the ED for his chronic back pain rather than seeking treatment from a primary care provider:

Well if my back is hurting too bad, I go to the emergency room. Basically that's what I've been doing and then I after I get the medication I just wait until that episode is over with and then I won't worry about it until it happens again or I do something to agitate it and then I'm running back to the emergency room.
Having a voice

The veteran participants described experiences where they were often discounted in the healthcare system. They wanted to be heard and have a say in their healthcare and social situation as one participant explained after visiting the ED:

I just would like to be heard sometimes, I don’t like to be talked at, I definitely do not like to be talked down to, but I would just like to be heard…if the provider or care source would just maybe listen, he would just know how to treat the person that they’re providing service for. We don’t need a lot. We may need a little patience but we don’t need a lot.

Often participants described situations that could have been more easily resolved had their healthcare provider listened to them and tried to better understand their needs and life situation. For instance, one participant explained how his needs may be different from another individual in ED who is also experiencing homelessness:

I think healthcare providers really need to listen to our problems more and really listen and just take each individual case different, we all are different some people need help with certain things, others need help with other things.

Homeless veterans vividly described experiences of feeling disposable to not only healthcare providers and social service providers but by the general public. One veteran described how he feels when attempting to interact with emergency department staff and healthcare personnel:

Because of my homelessness, I don’t think they really take us as being very important people.
Participants’ negative health-related experiences often prevented them from reaching out for help and promoted lack of trust between the homeless and their providers. A participant described not wanting to return for healthcare services because of his negative ED experience:

The doctor was rude. He came in and told me I had a year, he said you’ll be dead in a year if you don’t change your ways.

**Valuing others**

Regardless of experiencing both positive and negative situations in the ED and other health-related settings, many participants were quick to praise those who truly try to help homeless veterans. Participants provided encouraging stories where they either experienced or witnessed others helping homeless individuals:

All these people go beyond their job. I see one case worker, she takes a guy across the railroad to pick up stuff that he needs and the case workers are taking people to their new place.

Much emphasis was placed on feeling that individuals were genuine in their willingness to help and greatly appreciated when there was someone prepared to advocate for them. A veteran with suicidal ideations described how important it was that the emergency department psychiatric staff stepped in to help him:

I went to the emergency room and told them that I had had it, I was ready to kill myself. Right then the psychiatric emergency department jumped in and they kept me in the hospital for awhile until I felt I was all right. They asked me if I'm ready to go home yet, and I wasn't feeling it, I wasn't ready to go home, so I didn't go home.

**Discussion**
The findings from this research study indicate that emergency department utilization is often the last option for male homeless veterans. When participants were asked about a time they needed to seek treatment for their chronic health problems they often described an experience involving ED care. This is significant, and provides some explanation for why homeless veterans are high utilizers of EDs (Doran, Raven, & Rosenheck, 2013; Hastings et al., 2011; Tsai & Rosenheck, 2013). Furthermore, the findings suggest that homeless veterans lack the knowledge and the time required to access other healthcare resources, such as primary or ambulatory care services, that are often cheaper and more effective at treating chronic issues.

Individuals who are homeless need to be thoroughly educated about healthcare services that are available to them, about the process of accessing healthcare, and about what is appropriate for the ED. This finding is supported by previous literature that reports the extensive need for more education and comprehensive discharge planning for this vulnerable population (Chambers et al., 2013; DiPietro et al., 2012; Ku et al., 2010). However, because of their housing and often food instability, homeless veterans often described using the ED because they had no other option. They are focused on finding food, shelter, and safety (McCormack & MacIntosh, 2001) rather than seeking appropriate healthcare services. The ED serves as their safety net and veterans described their attempts to deal with their health issues until they symptoms became unavoidable. As a result, they sought out ED care for various reasons such as treatment for diabetes, medication refills, or a nebulizer treatment for their chronic obstructive pulmonary disease exacerbation.

Recommendations for providing care to this unique population include first conducting a brief medical and social history from the veteran and discuss with them what their needs and expectations are from their ED visit. Not all homeless veterans who seek out ED care want help
with social issues. They may choose to continue with their current transient lifestyle. Therefore, it is important for emergency nurses to know upfront what the veteran expects from the visit so a plan for ED care can be initiated. Whether a homeless veteran is admitted to the hospital or discharged from the ED, valuable information is available to assist with their needs. The Department of Veterans Affairs provides a list of useful resources for homeless veterans that can be accessed via the internet (VA, 2016a). Included are national outreach materials such as a telephone hotline number to get immediate aid for a homeless veteran, aid available specifically for women veterans, housing and employment assistance programs, and numerous other national and local resources. Additionally, it is important to collaborate with social services and local VAAs who may have access to more available resources and can support emergency nurses in their efforts.

Participants describe both positive and negative experiences when encountering emergency health services in both the VA and the community setting. Marginalization of vulnerable populations is not a new concept and homeless participants in this study describe how they often felt disposable and wanted to have a voice in the matter of their health. Veterans who are homeless often have more complex healthcare needs (Chambers et al., 2013; Ku, Scott, Kertesz, & Pitts, 2010) than the general population. Additionally, they are often a nomadic population and may seek health services across multiple states and healthcare networks. Therefore, healthcare providers must seek to gain a full understanding of their health and social situation. During their military service veterans may have been exposed to chemicals, noises, animal bites, and other traumatic occurrences that can cause health concerns (VA, 2016b). It is important for providers to be vigilant when providing services to our nations heroes and allow them the appropriate time and space to adequately explain their healthcare needs.
Limitations

A limitation of this study was that participants were interviewed at one point in time and may not adequately represent homeless veterans seeking treatment at other VA and non-VA EDs across the United States. However, since participants reported being treated at both VA and non-VA settings, and there are veterans who are homeless widespread across the US, it can be inferred that results are easily transferrable to other urban settings. Another limitation of this study was that the resulting sample was of an older age (mean=57 years old) which may contribute to their need to seek care in the ED more often than younger homeless veterans due to having more health problems. A final limitation of this study was that the veteran status of participants was self-disclosed. Participants were not asked to provide written proof of military service. Although, due to the nature of the questions asked during the interview process it would be challenging for a participant to falsify military information and described experiences.

Implications for Emergency Nurses

Emergency nurses are likely to encounter homeless populations, including veterans, because of their frequent visits to EDs across the United States (CDC, 2011). They are in a unique position to provide healthcare, much needed health education, and advocate for this vulnerable population. Results from this study indicate how vital experiences in the ED can be to a homeless veterans’ overall quality of life. To ensure that patient-centered care is provided to homeless veterans, emergency nurses should assist with their physical, mental, and social problems, actively listen to their complaints, value them as individuals, and offer their support as a dynamic member of the healthcare team. It may be necessary for emergency nurses to take additional steps to support homeless veterans such as making phone calls and helping them to set
up appointments for follow-up care since health is often a secondary factor in their chaotic lifestyle.

The ED can be a volatile environment where emergency nurses and other healthcare providers need to make quick, educated decisions in order to deliver the best care to often the sickest patients. Providing patient-centered care to the homeless, who often come to the ED for lower acuity health problems, is often not the top priority compared to a gunshot wound or acute stroke. Yet, a slight shift in the ED culture could make the difference in the lives of homeless individuals and everyone attempting to receive care in the ED. Higher acuity patients will always take priority, however, taking a few extra minutes to meet a homeless veteran’ needs could make the difference in having an overcrowded, potentially unsafe ED an environment where wait times are short and all patients receive optimal care.

Veterans themselves have unique physical and mental health needs due to their service in the military to which emergency nurses should be alert. They are often exposed to hazardous materials such as chemicals, cold injuries, and contaminated water and experience mental health issues such as post-traumatic stress disorder, substance abuse, and depression because of their exposure to combat and other atrocities (VA, 2016b). Emergency nurses must take the time to ask pertinent health questions related to a homeless veterans’ military experience. A VA (2015) developed tool is available to assist nurses and other clinicians in obtaining valuable military and health history information from veterans in order to best provide for their unique healthcare needs. This includes asking about military era served, if the veteran experienced combat, talking with the veteran about stress, anxiety, depression, and other mental health issues, and discussing their housing situation (VA, 2015).
From previous literature (Chambers et al., 2013; Ku, Scott, Kertesz, & Pitts, 2010) and results of this study, we know that the homeless need a better understanding of their health problems, more knowledge about appropriate health resources (Parker & Dykema, 2013), and need to be given the opportunity to be better understood. Thus, emergency nurses should seek to provide more comprehensive health education and discharge planning to their homeless patients in order to reduce overcrowding of emergency departments, increase patient safety, and lessen the economic burden on the healthcare delivery system. Finally, by giving a voice to those homeless individuals who may have been previously ignored, emergency nurses create positive health interactions that ultimately lead to positive patient-centered outcomes.

Conclusions

It is imperative for emergency nurses to have a clear understanding of the health and social needs of homeless individuals in order to prevent ED overcrowding, reduce repeat visits, and help improve patient safety. This study provided a unique patient-centered perspective of what homeless veterans experience when seeking care in the emergency department. When healthcare providers, particularly nurses, give the homeless the opportunity to express themselves, a more trusting relationship unfolds that creates an environment for positive patient outcomes through advocacy and education. However, future research with more innovative approaches are still needed to gain a better understanding of methods to reduce unwarranted, high emergency department usage among homeless veterans and all homeless populations.
References


Appendix A

A Grounded Theory Study of How Homeless Veterans Manage Their Chronic Health Problems

Demographic Sheet

1) Age: ________________________________

2) Race/Ethnicity: ________________________________

3) Number of years served in military: ________________________________

4) Military era(s) served: ________________________________

5) Length of homelessness: ________________________________

6) Number of episodes of homelessness: ________________________________

7) Primary place for sleeping at night: ________________________________

8) Diagnosed chronic health care problem(s): ________________________________
   ________________________________

9) Regular use of health care service (please circle response):
   Yes  No

10) If regular use of health care service, where do you go for care:

   VA hospital
   VA emergency department
   VA clinic
   Community hospital
   Community emergency department
   Community clinic
Appendix B

Homeless Veterans Interview Guide

You have indicated that you have had a health problem for a long time without having a stable home. I am interested in understanding how you manage this in your life?

Tell me about your experiences as a person with unstable housing.

Tell me about your experiences with your long-term health problem(s)

Can you tell me what a typical day is like for you?

Tell me about a time when you needed to seek treatment for your chronic health problem.

How do you manage your chronic health problem(s) while also dealing with the daily living circumstances of having no permanent residence.

Tell me about your experiences, if any, with the VA system.

Tell me about your experiences with community social service resources.

Tell me about your experiences with community medical resources.

What advice would you give to other homeless veterans to manage their health?

What advice would you give to health care and social service professionals working with homeless veterans with a chronic health problem.
Appendix C

Knowledge Experts Interview Guide

You have indicated that you work with homeless veterans, can you tell me about your experiences working with these veterans who also have diagnosed chronic health problems.

Can you please share any specific incidences (without giving away any identifying information) that you recall in dealing with a homeless veteran attempting to manage their chronic health problem.

What some facilitators for homeless veterans and what are some barriers (community, VA).

Are there any current practices that you would like to change when dealing with homeless veterans who have chronic health problems.

What recommendations would you make to any social service provider or health care professional working with homeless veterans who have a chronic disease.

What recommendations would you make to homeless veterans to best manage their health problems.