Unique health needs and characteristics of homeless women in Iowa City, Iowa

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Abstract

Context: *Homeless individuals have comparatively poorer health, however few gender specific assessments exist.*

Purpose: *This cross-sectional survey of homeless individuals assesses gender-specific health needs.*

Procedure: *68 Homeless adults were surveyed at a shelter from March to April, 2015 in Iowa City, IA. Descriptive statistics were computed to compare gender-subgroup responses.*

Main Findings: *The study population was predominately male (45, 67.2%), white (37, 54.4%), and averaged 42.35 years old (range 21-74). Males were more likely to be veterans (13, 28.9% vs. 1, 4.5%, p=0.025). Women were more likely to have dependents (9, 47.4% vs. 1, 4%, p=0.001) and access to dental coverage (16, 80% vs. 12, 30.8%, p=0.001). Similar rates of chronic disease, primary care access, and unmet health needs were noted.*

Conclusions*: Homeless women and men have unique needs and would benefit from gender-specific health interventions. Resources for child-care may be important for women who are homeless, while dental health care may be particularly beneficial for men.*

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Introduction

There are 600,000 homeless individuals in the United States (U.S.) on any given night.[1] Homeless individuals have a higher risk of premature death than the general population, and are more likely to suffer from poor mental health, have higher rates of substance use, and have an increased prevalence of infectious

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and chronic disease than the general population.[1] Over 70% of homeless individuals in the US report having an unmet health care need over the past year.[2]

Women represent a fast-growing subset of the homeless population.[3] Homeless women are at an increased risk for experiencing violence [4] and unplanned pregnancies[5] when compared to the general population. Women also face significant obstacles in obtaining medical services, with almost 40% reporting not seeing a medical professional in the last 60 days despite having a need. Homeless women with children had more difficulty accessing care than homeless women without children, indicating child-care may be an additional barrier in accessing care. Homeless women had fewer obstacles to health care if they had a regular source of healthcare; this factor was more important than insurance status alone. Covering the cost of transportation and locations with comprehensive care including social services were identified as ways to improve access.[6]

There are few studies of the differing health care needs of homeless men versus women, although there are a few studies of homeless Veterans. Homeless, female Veterans tend to be younger, homeless for less time, report shorter periods of incarceration, and have a decreased prevalence of substance use disorders. However, homeless, female veterans were more likely than their male counterparts to suffer from post-traumatic stress disorder (PTSD) and have dependents.[7] When compared with the general population of women, homeless women were 2-4 times more likely to be veterans.[8] It is unknown whether these differences seen amongst men and women in the veteran population can be generalized the civilian (non-veteran) homeless population.

Women and men may have different health needs while experiencing homelessness. This merits further investigation to better address gender-specific health needs of homeless individuals, particularly at shelters that serve both men and women. This study set out to address this gap in the literature by conducting a cross-sectional survey of homeless adults at a shelter in Iowa City to identify unique differences in male versus female health care needs among the homeless.

Methods

Survey development and administration

A survey with open and close-ended questions was created in collaboration with the University of Iowa research team and staff members of an Iowa City homeless shelter. This shelter was chosen as the study site as it the only homeless shelter in the county. The survey aimed to determine unmet health needs and wellbeing in those seeking services at the shelter. The survey asked questions related to demographics, health insurance, self-perceived health, access and need for health care services, and unmet needs. Open-ended questions included what makes being healthy difficult and what services not provided would be of the greatest benefit. The survey was piloted with homeless individuals staying at the shelter and revised for content based on feedback and responses in February of 2015. The revised survey was administered at the shelter between March and April 2015 by

the primary author [Appendix 1]. Given the exploratory nature of the study, no power calculation was used to determine number of participants needed. Participants were invited to participate if they were over the age of 18 and spoke English. Announcements were made in the shelter's common area and the research team provided interested clients with a consent letter and further details of the study goals. The survey was voluntary. All those who were asked in person to participate, showed interest and filled out the survey. The number of those who heard the announcement and chose to participate was not recorded. If an individual needed assistance to complete the survey, a member of the research team read the form aloud in a private area and recorded the responses on the survey. The survey took between 5-20 minutes to complete, and participants received two one-way bus passes ($2.00 value) for participating, regardless of whether the entire survey was completed. All responses were kept anonymous. The University of Iowa Institutional Review Board (IRB) approved this study (IRB # 201502818, 3/2015).

Statistical Analysis

SPSS v. 24 (IBM Inc.) was used to compute descriptive statistics and frequency distributions. Statistical analyses focused on the differences between male and female participants using a combination of Chi-Square tests of independence and Fisher's exact tests for dichotomous variables. Odds ratios and 95% confidence intervals were used as measures of effect for these analyses. Free response questions were grouped into themes by two of the researchers and then quantified. For consistency, any unclear responses were excluded from the analysis, such as multiple responses to a question or qualitative responses to a quantitative question. All statistical tests were two-sided and $p < 0.05$ was considered statistically significant.

Results

Demographics

There were 68 surveys administered in total. Two individuals required assistance to complete the survey. Respondents were predominately male (45, 67.2 %) and white (37, 54.4%). The average age was 42.35 years (range 21 to 74). Most individuals had been homeless prior to this episode (41, 60.3%) and did not have children with them at the shelter (57, 83.8%). Further description of the sample can be found in Table 1.

Male vs. Female Comparisons

In terms of differences seen between males and females, men were more likely to be veterans (13, 28.9% vs. 1, 4.5%) (p=0.025, OR 0.12, 95% CI=0.01-0.96). Whereas women were more likely to have dental insurance coverage (16, 80% vs. 12, 30.8%) (p=0.001, OR 9.0, 95% CI: 2.48-32.68) and were more likely to have children staying with them at the shelter (9, 47.4% vs. 1, 4%) (p=0.001, OR 21.60 95% CI= 2.41-193.72). Similarities were also noted between the two populations. Both men and women reported similar current prescription medication use, reports of chronic, ongoing, or serious health conditions, and reported having a primary care doctor—all of which were about half of those surveyed. Additionally, there were similar rates of unmet health needs reported in men (9, 21.4%) and women

(3, 14.3%). Further comparisons are detailed in Table 2.

Table 1: Demographic Characteristics of Survey Participants

Demographic Characteristic	Frequency (%) or Mean (SD) [1]	Missing Responses
Age	42.35 (12.98)	
Sex		1
Male	45 (67.2%)	
Female	22 (32.8%)	
Gender		4
Man	44 (65.7%)	
Woman	20 (29.9%)	
Race		1
African American/Black	24 (35.3%)	
White	37 (54.4%)	
Native American	3 (4.4%)	
Unknown/Refused	1 (1.5%)	
Multiple	3 (4.4%)	
Hispanic		4
Yes	5 (7.4%)	
No	59 (86.8%)	
Veteran Status		
Yes	14 (20.6%)	
No	54 (79.4%)	
First Time Homeless		
Yes	27 (39.7%)	
No	41 (60.3%)	
Parents with Children Staying at Shelter		1
Yes	10 (14.7%)	
No	57 (83.8%)	
[1]Percentages displayed based only on those answering the question (i.e. "Valid Percent"), n=68 unless noted otherwise		

When asked to qualitatively comment on their unmet health needs, participants overall reported dental health (4, 30.8%), mental health (3, 23.1%), and chronic conditions (2, 15.4%) as top concerns. Males accounted for all the reported dental and mental health unmet needs. For example, one participant reported "I need to be seeing a psychiatrist on a regular basis" while another wrote, "Some medicine not covered by insurance".

Participants were asked to rate their perceived quality of health and current insurance coverage (**Figure 1**). Men were more likely than women to rate their overall health including their mental health as good to excellent (31, 70.5% vs. 11, 52.4%) and (32, 74.4% vs. 9,

42.9%), respectively. Both women and men reported good to excellent access to health care coverage (17, 89.5% vs. 28, 68.3%), with women being more satisfied with their coverage in general.

Table 2: Key Variable Comparisons for Demographic and Health Status Questions

Variable		Frequency (%)[1]		OR (95% CI)	*P* – Value[2]
		Male	Female		
Veteran		13 (28.9%)	1 (4.5%)	0.12 (0.01 – 0.96)	0.025
First time without own housing/homeless		16 (35.6%)	11 (50%)	1.81 (0.64 - 5.10)	0.258
Reports Smoking		35 (77.8%)	13 (59.1%)	0.41 (0.14 - 1.24)	0.111
Reports any unmet health needs		9 (21.4%)	3 (14.3%)	0.61 (0.15 – 2.55)	0.735
Currently has health insurance		27 (62.8%)	17 (81%)	2.52 (0.72 - 8.81)	0.164
Currently has dental insurance		12 (30.8%)	16 (80%)	9.00 (2.48 - 32.68)	0.001
Currently takes prescription medications		22 (48.9%)	11 (52.4%)	1.15 (0.41 - 3.24)	0.792
Insurance include prescription drug coverage		24 (77.4%)	15 (88.2%)	2.19 (0.40 - 11.96)	0.460
Reports any chronic ongoing or serious health care conditions		20 (44.4%)	9 (45%)	1.02 (0.36 - 2.95)	0.967
Has a primary care physician		21 (46.7%)	12 (57.1%)	1.5 (0.54 – 4.33)	0.428
Has children staying with them		1 (4%)	9 (47.4%)	21.60 (2.41 - 193.72)	0.001
Race					
	White	28 (63.6%)	9 (40.9%)	Ref.	
	Not White	16 (36.4%)	13 (59.1%)	2.53 (0.89 - 7.21)	0.079

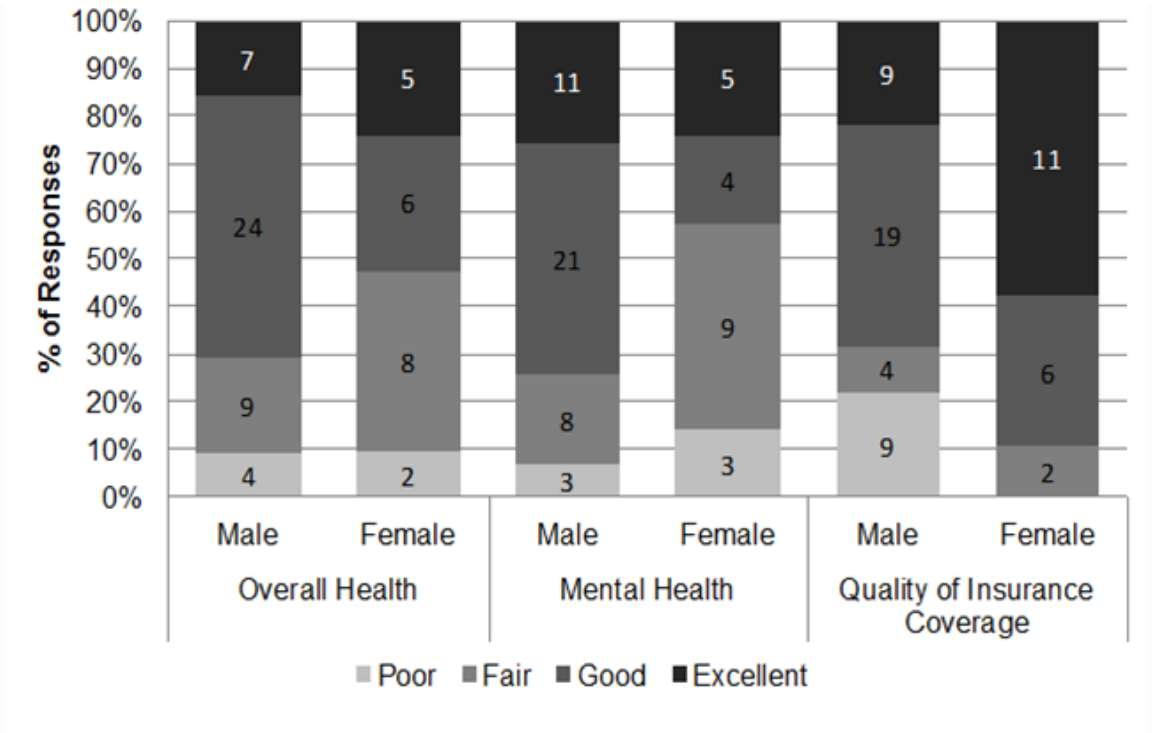
[1]Percentages represent the percent of those responding "Yes" to each question.
[2]Calculated using Chi-Square tests of independence or Fisher's Exact tests, as appropriate.

Men and women reported some differences in terms of health care and wellness interests, although there was overlap (**Table 3**). The most common topics of interest for men were dental health (20, 57.1%) and mental health (15, 42.9%) whereas women were most commonly interested in women's health (9, 50%) mental health (11, 61.1%) and weight loss (11, 61.1%).

Discussion

The main findings of this cross-sectional survey of homeless individuals at a single shelter in a medium-sized midwestern city are that notable differences in the health care needs exist among male and female homeless people. These results are important because they demonstrate that homeless men and women have distinct health care needs and consequently may benefit from tailored health care interventions. While only a cross-sectional sample at a single shelter, these results illustrate the importance of assessing women and men's health care needs in the overall

homeless population when designing health care programs and interventions.



Subjects were asked to self-rate their overall health, mental health and quality of insurance coverage. This graph shows male vs. female responses.

Figure 1: Perceived Quality of Health and Current Insurance.

Our results are consistent with previous studies that have shown that the medical needs of the homeless population are complex.[1,2] Both men and women reported a high level of chronic, ongoing or serious health conditions. Women rated their overall and mental health worse than men, and it is unknown why this may be the case. It is possible that women may have increased stress secondary to having child care duties and that this may worsen overall mental health. This survey was a general assessment, and did not detail the specific health conditions of the respondents and thus we are unable to determine whether the disease burden objectively differed between the two groups. However, self-rated health is highly correlated with mortality and is often used as a proxy for health status in national and international surveys.[9 10 11]

Participants reported fairly limited access to primary care with only about half of those surveyed identifying a primary care physician. Despite this relatively poor primary care access, there were a limited

number of unmet health needs identified by this survey. Some reasons for this might include reporting bias, recall bias, lack of understanding of chronic conditions, etc. Further study delving into the details of respondents' medical histories would be required to better understand disease burden, as these rates are lower than prior studies suggest. Smoking can contribute to chronic conditions and was noted in both men and women, although higher in men with over three-quarters of male respondents reporting smoking. These results are consistent with national smoking rates in the homeless population.[12]

Table 3: Self-Report Interest in Health Care and Wellness Topics

Variable	Frequency (%)[1]	
	Male	Female
Mental Health	15 (42.9%)	11 (61.1%)
Substance Use	11 (31.4%)	3 (16.7%)
Dental Health	20 (57.1%)	8 (44.4%)
Health Education	11 (31.4%)	6 (33.3%)
Heart Health	7 (20%)	6 (33.3%)
Smoking Cessation	9 (25.7%)	2 (11.1%)
Mindfulness	11 (31.4%)	3 (16.7%)
Disease Control	3 (8.6%)	3 (16.7%)
Weight Loss	4 (11.4%)	11 (61.1%)
Infant Care	4 (11.4%)	3 (16.7%)
Women's Health	1 (2.9%)	9 (50%)
Diabetes	6 (17.1%)	3 (16.7%)
STD Edu.	6 (17.1%)	6 (33.3%)
Other	4 (11.4%)	1 (5.6%)

[1]Percentages displayed based only on those answering the question (i.e. "Valid Percent")

These results build upon previous work that surveyed 974 homeless women, which found that those with children had higher rates of unmet health needs and over three-fourths of women with children thought that coordinating care with their children would be effective.[6] Another study conducted in the US found that 24.3% had dependent children at the time of interview and that these women were more likely to have insurance and have shelter.[13] We found that women were much more likely to be staying with their children at the shelter than men. These results also could potentially be used to design interventions to care for homeless women with children and suggest that child-care related needs may be an important consideration when caring for homeless mothers and children. For example, providing free child care at the shelter to help women to have time to care for themselves and/or seek employment.

Women were more likely than men to have health insurance and were more likely to report that their coverage was good to excellent. However, coverage alone is not enough to meet the health care needs of the homeless population or any other population. There are well defined issues related to health care access, transportation, and competing time demands in the homeless population.[14] In a Canadian study, a country with universal health care coverage, the researchers identified unmet needs in homeless populations, which were significantly associated with younger age, being the victim of a physical assault within the last year, and poorer mental and physical health.[15] Having health care coverage and having a usual source of health care have been found to facilitate access to care for homeless women in a study conducted in Los Angeles.[16] It can be difficult to compare prior studies done in the U.S. to our findings in regards to insurance coverage, as many changes have occurred since implementation of the Affordable Care Act (ACA). This act was passed in 2010 but its major coverage provisions were not effective until 2014, a year before our study took place.[17] Iowa chose to expand Medicaid coverage under the ACA. This may have contributed to the higher than anticipated insurance coverage rate we found in this survey. Continuing to study homeless individuals in further detail regarding specific health information is critical following implementation of the ACA, and changes in future health care policy. Changes that decrease coverage to vulnerable populations, such as homeless individuals, would be detrimental to overall health as coverage is a minimum of what is necessary for good health given that other countries with universal health care struggle with unmet health needs among their homeless populations. Providing homeless individuals with information on resources, outreach to provide education and/or medical care, and comprehensive primary care are important to consider moving forward.

We found half of participants had a primary care provider, which was higher than expected based on previous studies of homeless populations. This could indicate access to resources or that the survey respondents were medically complex with health needs requiring regular care. This explanation seems more plausible given that respondents reported high levels of chronic, ongoing, and serious conditions. A Canadian study in 2007 found that homeless individuals had a 41% probability of having a family doctor compared with 91% of the general population. The same study found that their homeless participants did not have a good source of primary care.[18] A systematic review with research from the US looked at ways to improve homeless individuals' access to primary care and concluded that an orientation that discussed available services with or without outreach helped to increase access to primary care in urban homeless populations without serious psychiatric comorbidity.[19] Multi-disciplinary care led by family care physicians that have outreach and involvement in community organizations is another proposed method to provide comprehensive care to the homeless.[20] Based on our results here, these programs would be welcome but could be tailored to individually meet the health and social needs of homeless men and

women.

Limitations.

This study's main limitation is in regards to its sampling. It represents a small, convenience sample from a single site in a rural state that is not representative of the homeless population as a whole. As it surveyed only those seeking services, there may be individuals with different needs that were not included and the results may not be generalizable. Additionally, the large confidence intervals may indicate less-accurate estimates of identified differences. Also, non-English speaking participants were not included. However no non-English speaking participants were directly encountered during the survey period and generally comprised a small percentage of the shelter's population in general during the time period of the survey.

Future work could potentially identify specific conditions to better understand how the chronic disease burden differs between male and females within the homeless population. More in depth interviews with individuals may also reveal more information regarding health and unmet needs given the social and medical complexity of the study population. Additionally, the survey included a question regarding sex assigned at birth versus gender, and all participants were cis-gendered so this may not be generalizable to non-binary individuals.

Conclusions.

In summary, in this cross-sectional survey of adult homeless individuals in Iowa, we found men and women to have differences in their health care needs and experiences, particularly in that women were more likely to have children staying with them, have worse self-reported overall and mental health, and better self-reported insurance coverage. In general, both genders reported a high level of chronic, ongoing and serious diseases, including tobacco use disorders and mental health concerns.

Resources for child-care may be important for women who are homeless, while dental health care may be particularly beneficial for men. Helping individuals quit smoking, providing adequate support for mental health, and improving primary care coverage are important considerations that can potentially improve health outcomes in this vulnerable population. Future work should elucidate the differences between men and women staying in homeless shelters in order to improve health care quality and outcomes and to guide public health efforts and policy implementation by local agencies and policymakers.

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