Foot Care Clinics Within A Mobile Suitcase Clinic- Providing Healthcare for the Homeless

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Abstract

Homeless individuals have significantly higher rates of mortality, morbidity, and hospitalization compared to the general population. Foot problems have been described as a common concern among homeless individuals, but these are often overlooked and inadequately treated. The purpose of this article is to describe the development, implementation, and evaluation activities of footcare clinics for homeless clients as an extension of a "Suitcase Clinic" that functions within homeless shelter sites. The Suitcase Clinic provides a unique healthcare delivery model that addresses the unconventional and complex health concerns of both sheltered and unsheltered homeless individuals. This service provides clinical learning activities for public health nursing and physician assistant students within an academic-community partnership while addressing the complex needs of vulnerable homeless populations. Evaluation activities are based on the Donabedian model of structure, process, and outcome. Community-based programs with targeted screening and referrals for foot care problems can result in improved health outcomes for homeless individuals.

Purpose

The purpose of this article is to describe the development, implementation, and evaluation activities of footcare clinics for homeless clients. This project is an extension of services provided through a unique mobile clinic that operates out of a suitcase within homeless shelters in a rural community in Central Virginia. This service provides clinical learning activities for public health nursing and physician assistant students within an academic-community partnership while addressing the complex needs of vulnerable homeless populations.

Introduction

Homelessness is a major public health concern in North America. Recent reports suggest that on any given night, over 553,000 individuals across the United States are homeless (U.S. Department of Health & Human Services, 2018). Homeless individuals have significantly higher rates of mortality, morbidity, and hospitalization compared to the general population. They face a wide range of health problems such as dental problems, mental illnesses, respiratory diseases, and seizures, but frequently report unmet needs for health care (Baggett, O'Connell, Singer, & Rigotti, 2010). While homeless individuals experience healthcare disparities for many reasons, these disparities not only affect the homeless individuals, but also pose a public health risk while increasing the economic burden of the health in the community (Chen, Mitchell, & Tran, 2014).

Discussion

Foot problems have been described as a common concern among homeless individuals, but these are often overlooked and inadequately treated (To, Brothers, & Van Zoost, 2016). Lower-extremity health allows the homeless individual to seek needed resources with adequate mobility (Chen, Mitchell, & Tran, 2014). Walking is a common mode of transportation among homeless individuals and increased risks of physical injury, poor hygiene, and inadequate footwear have been cited as contributing factors to the development of foot problems (Schoon, Champlin, & Hunt, 2012). Frequently, homeless individuals self-report conditions such as fungal nails, calluses, and athlete's foot (tinea pedis) which may seem trivial. However, when coupled with the risk factors such as diabetes, smoking, substance abuse, and poor hygiene, these symptoms can lead to ulcerations, cellulitis, and serious infections (Chen, Mitchell, & Tran, 2014). Homeless individuals are also at a high risk of physical injuries and repetitive trauma which can cause limb-threatening and potentially life-threatening conditions (To, Brothers, & Zoost, 2016). In addition, the lack of access to health services and financial resources also prevent homeless individuals from receiving appropriate treatment for footcare concerns (Hwang, 2001). There is clearly a need for evidence-based interventions to improve foot health in this vulnerable population and lower the social economic burden to communities.

History of the Suitcase Clinic

The unmet social, economic, and health needs of the homeless population are of growing concern to both public and private sectors as steep costs are incurred when severely debilitated homeless individuals cycle repeatedly through hospitals, emergency departments, treatment centers, and jails. The communities of Harrisonburg and Rockingham County in Virginia have recognized homelessness as a growing problem requiring compassion, care, and understanding. In recent years, these communities have seen a growth in homelessness due to low wages, a lack of affordable housing, and unemployment. The annual Homeless *Point-in-Time* (PIT) count is a prevalence survey that counts the number of persons who are homeless on a given day each year. Table 1 shows that the reported number of homeless adults and children in this community has increased substantially since 2013 (Harrisonburg HUD and Community of Caring PIT, 2018). These numbers are likely an underestimation due to the nature of homelessness.

Table 1.

Number of Reported Persons Homeless in Harrisonburg, VA

	2013	2014	2015	2016	2017	2018
Sheltered Adults	106	98	101	109	99	111
Sheltered Children	36	26	30	37	27	33
Unsheltered Adults	10	5	3	2	1	5

In recent years, community members, homeless individuals, representatives from homeless shelters, and the academic community mobilized efforts to address these issues using tenets from Community-based Participatory Research (CBPR), a model that emphasizes local relevance of public health problems and ecological perspectives that acknowledge multiple determinants of health and disease (Minkler & Wallerstein, 2008; Kiser & Hulton, 2018). Community-wide efforts were organized to address these issues and in 2009, the *Healthcare for the Homeless Coalition* of Harrisonburg/Rockingham was formed. After conducting an in-depth community assessment, as well as numerous planning meetings and funding initiatives, the launch of the

"Suitcase Clinic" began in June 2011 and emerged in response to the inherent needs of the local homeless community.

The mission of the *Healthcare for the Homeless* Suitcase clinic is to prevent and end homelessness for vulnerable individuals and families by providing quality and integrated healthcare and promoting access to affordable housing and sustainable incomes through direct service, advocacy, and community engagement. The Suitcase Clinic provides a unique healthcare delivery model that addresses the unconventional and complex health concerns of both sheltered and unsheltered homeless individuals. Uniquely, rather than the program functioning within a permanent clinic setting, the supplies are transported in a suitcase on wheels and the clinic functions in private spaces within the six local shelter sites. This program has provided the most vulnerable individuals with access to healthcare and has become the provider of last resort when the mainstream system has not been able to offer an environment that engenders trust or when there is no healthcare service at all.

The Suitcase Clinic addresses both acute and chronic medical conditions using non-judgmental and client-centered services, which can empower clients to overcome stigmas against the traditional healthcare organizations in order to receive treatment. The Suitcase Clinic has also functioned as an intermediary portal for patients to access more mainstream services through the Harrisonburg Community Health Center. The Suitcase Clinic provides 18-20 clinic hours/week and is staffed by volunteer providers to include a full-time nursing case manager, and numerous volunteers. To qualify for services, the clients must currently be sheltered or street homeless, or have transitioned into housing within the past 90 days. In the past year, the Suitcase Clinic has provided care to over 300 unduplicated homeless clients with over 1500 care encounters, including providing over $18,000 in free medications.

Development and Implementation of Foot Clinics

A piloted footcare clinic began in January 2015 after numerous shelter managers and Suitcase Clinic volunteers reported footcare care as an unmet need. Homeless individuals have extended exposure to moisture, poor footwear, prolonged standing and walking, poor foot hygiene, and repetitive trauma (Muirhead, Roberson, & Secrest, 2011). In addition to being exposed to environmental living conditions that increase their risks for multiple foot and skin conditions, peripheral neuropathy associated with alcoholism and diabetes often complicates these problems.

The aim of the footcare clinic is screening and prevention of common systemic diseases affecting the feet.

Initial assessment of the clients for the onsite footcare clinics includes a health assessment and diabetic screening. An inspection of the feet follows and includes soaking, cleaning, nail clipping, pumice stone exfoliation, foot massage, and lotion and essential oils application. Throughout the visit, the provider intersperses health education in the conversation. Clean socks, free shoes, and appropriate referrals are also a part of the services offered in the foot clinics. Any noted foot issues are addressed on site immediately with referral to the Suitcase Clinic Nurse Practitioner (N.P.) or Physican Assistant (P.A.) and P.A. students working at that clinic site. Referrals to specialists are facilitated when the diagnosis requires.

The foot care clinics are planned, coordinated, and implemented by nursing students from a local University, in collaboration with P.A. students from the same University. Faculty from both the School of Nursing and the P.A. program also work closely with the Suitcase Clinic and provide oversite for the foot clinics. Students from the Nursing and P.A. programs work with the Suitcase Clinic as one aspect of their clinical course work. For the nursing students, the clinical hours involved in conducting the foot clinics are a part of their "Population Centered Care in the Community Clinical". Students spend a semester working with the Suitcase Clinic and are provided initially with an orientation to the Suitcase clinic and each homeless shelter served by the clinic. Each week, the students are present for the clinic and are responsible for planning and organizing the foot clinic as well as assigning roles and responsibilities to each person on the student team. Students collaborate with the Nursing faculty to prepare in advance educational materials on foot care and the relationship between care of the feet and overall health outcomes. This information is provided by the students to the clients as a part of their foot clinic visit. Throughout the clinic, students are also responsible for evaluating client outcomes and documenting the encounters in the client's medical record

Evaluation Activities

Evaluation of the Suitcase Clinic services follows a well-known model by Donabedian (1982) that highlights structure, process, and outcomes. Table 2 outlines the evaluation activities of the Footcare Clinics and highlights the aspects and data sources for ongoing evaluation and feedback.

Table 2.

Structure, Process, Outcomes of Footcare Clinics for Homeless

Structure	**Process**	**Outcome of Services/Measurement**	
Physical properties of the provided space	Cultural competence Privacy and Confidentiality	User/client satisfaction	Patient Satisfaction Tool
Access to services	Intake Foot Assessment Screening practices Client involvement in planning and evaluation	User/client satisfaction Number of referrals, visits, phone calls	Patient tracking documentation/flowsheets Client Health Records
Quality and Safety	Staffing/Qualifications Student education/ training of foot care practices for homeless	Student experiences, attitudes and behaviors	Student course evaluations/post clinical conferences Interprofessional Socialization and Valuing scale/Attitudes towards the homeless inventory

Implications

Lower extremity health in homeless individuals has important public health implications including interventions to prevent the spread of infection and subsequently lowering the community health burden and social costs (Chen, Mitchell, & Tran, 2014). Recommendations can be adapted and individualized for each community based on available resources, as these challenges are complex and require a holistic approach (Muirhead, Roberson, & Secrest, 2011). First, when designing healthcare programs for the homeless, predisposing, enabling, and need factors specific to homelessness need to be taken into consideration. Note that these individuals may not have material or financial resources that are necessary to maintain good foot hygiene. These include lack of transportation, patterns of living, co-morbid conditions, lack of resources

to adhere to regimens, lack of family support, competing needs for human survival, and a lack of judgmental care (Muirhead, Roberson, & Secrest, 2011).

Second, offer privacy and confidentiality during the footcare clinic. Embarrassment and sensitivity related to the condition of their feet, shoes, and socks have been identified as a barrier to care by homeless individuals (To, Brothers, & Zoost, 2016: Muirhead, Roberson, & Secrest, 2011). These concerns can help to guide interventions by providing materials such as clean water, soap, towels, nail clippers, clean socks, and properly fitting shoes while providing a quiet place for each client to participate in the foot care interventions (To, Brothers & Zoost, 2016).

Third, in developing academic-community partnerships assess the levels of interest and commitment of the stakeholders, as the level of commitment should be high for all involved (Schoon, Champlin, & Hunt, 2012). A comprehensive and targeted needs assessment followed by a community resource analysis is key for any community planning projects (Kiser & Hulton, 2018). Components of successful academic-community partnerships include trust and respect, competence, collaboration, commitment, and sharing of efforts (Broussard, 2011; McKinnon & Fealy, 2011). The students in this project hold fundraisers to support the purchasing of socks and shoes for the footcare clinic clients, thus demonstrating their enthusiasm and commitment to the projects. All of these components are integral in the implementation and sustainability of the foot care clinics. Finally, more research is needed on podiatric conditions and care among the homeless to create evidence-based interventions that are successful and sustainable. There is a limited body of literature on this topic despite the prevalence of foot problems in this population, thus leading to significant gaps that assess long-term health outcomes or better epidemiological data (To, Brothers, & Zoost, 2016; Chen, Mitchell, & Tran, 2012).

Summary

Given the high burden of unmet and social needs of this population, mobile interventions such as those provided by the Suitcase Clinic may be effective in providing foot care to homeless populations (To, Brothers, & Zoost, 2016). Community-based programs with targeted screening and referrals for foot care problems could result in improved health outcomes for homeless individuals.

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