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Journal

Journal of Primary Care & Community Health, 8(4)

Authors

Gabrielian, Sonya

Chen, Jennifer

Minhaj, Beena

et al.

Publication Date


2017-10-01

DOI

10.1177/2150131917699751

Peer reviewed

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Journal of Primary Care & Community Health
2017, Vol. 8(4) 338–344
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sagepub.com/journalsPermissions.nav
DOI: 10.1177/2150131917699751
journals.sagepub.com/home/jpc


Sonya Gabrielian^{1,2}, Jennifer C. Chen^{2,3}, Beena P. Minhaj⁴,
Rishi Manchanda⁵, Lisa Altman^{1,2}, Ella Koosis¹,
and Lillian Gelberg^{1,2,6}

Abstract

Objectives: Homeless adults have low primary care engagement and high emergency department (ED) utilization. Homeless-tailored, patient-centered medical homes (PCMH) decrease this population's acute care use. We studied the feasibility (focused on patient recruitment) and acceptability (conceptualized as clinicians' attitudes/beliefs) of a pilot initiative to colocate a homeless-tailored PCMH with an ED. After ED triage, low-acuity patients appropriate for outpatient care were screened for homelessness; homeless patients chose between a colocated PCMH or ED visit. **Methods:** To study feasibility, we captured (from May to September 2012) the number of patients screened for homelessness, positive screens, unique patients seen, and primary care visits. We focused on acceptability to ED clinicians (physicians, nurses, social workers); we sent a 32-item survey to ED clinicians (n = 57) who worked during clinic hours. Questions derived from an instrument measuring clinician attitudes toward homeless persons; acceptability of homelessness screening and the clinic itself were also explored. **Results:** Over the 5 months of interest, 281 patients were screened; 172 (61.2%) screened positive for homelessness; 112 (65.1%) of these positive screens were seen over 215 visits. Acceptability data were obtained from 56% (n = 32) of surveyed clinicians. Attitudes toward homeless patients were similar to prior studies of primary care physicians. Most (54.6%) clinicians agreed with the homelessness screening procedures. Nearly all (90.3%) clinicians supported expansion of the homeless-tailored clinic; a minority (42.0%) agreed that ED colocation worked well. **Conclusion:** Our data suggest the feasibility of recruiting patients to a homeless-tailored primary care clinic colocated with the ED; however, the clinic's acceptability was mixed. Future quality improvement work should focus on tailoring the clinic to increase its acceptability among ED clinicians, while assessing its impact on health, housing, and costs.

Keywords

homelessness, primary care, emergency department, veterans, quality improvement

Introduction

Homeless adults have poor health,¹ limited primary care engagement,^{2,3} high emergency department (ED) utilization,^{4,5} and an age-adjusted mortality that is 3.5 times higher than their housed peers.⁶ With competing needs for food, clothing, and shelter⁷—compounded by social isolation⁸—homeless adults face significant barriers to traditional primary care. As a result, homeless persons often use the ED for chronic disease management^{5,9} or to address needs for food, shelter, and safety.¹⁰ Innovative primary care systems—interdisciplinary patient-centered medical homes (PCMH)¹¹ tailored to homeless adults, focused on social determinants of health¹—decrease this population's acute care (ED and

inpatient) utilization.¹ Moreover, efforts to integrate and/or co-locate primary care and EDs may decrease inappropriate ED utilization and improve patient experiences.¹²⁻¹⁴ Yet to

¹VA Greater Los Angeles, Los Angeles, CA, USA

²UCLA David Geffen School of Medicine, Los Angeles, CA, USA

³Harbor-UCLA Medical Center, Torrance, CA, USA

⁴MedAmerica, New York, NY, USA

⁵HealthBegins, Los Angeles, CA, USA

⁶UCLA Fielding School of Public Health, Los Angeles, CA, USA

Corresponding Author:

Sonya Gabrielian, Mental Illness Research, Education, and Clinical Center, West Los Angeles VA Healthcare Center, 11301 Wilshire Boulevard, Building 210A, Los Angeles, CA 90073, USA.
Email: sonya.gabrielian@va.gov



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date, there is little precedent to colocate a homeless-tailored primary care clinic and ED.

Aligned with its commitment to end veteran homelessness,¹⁵ the Department of Veterans Affairs (VA) began a national Homeless Patient Aligned Care Team (HPACT, patient-centered medical home for homeless veterans) initiative in 2011.¹ HPACTs provide integrated health and social services for homeless patients who are disengaged from traditional primary care; this model is described in detail elsewhere.^{1,16-19} HPACTs throughout the country reflect their local organizational contexts; different models of homeless-focused PCMH are found across the country.¹⁹ Overall, the HPACT program was modeled on the Health Care for the Homeless program funded by the US Department of Health and Human Services, which has pioneered the country's homeless-focused primary care services; these services are primarily delivered in freestanding clinics or mobile clinics that visit sites offering social services to homeless persons, for example, shelters.^{1,20}

This article describes the feasibility (focused on patient recruitment) and acceptability (conceptualized as clinician attitudes/beliefs) of a pilot initiative to colocate an HPACT with an ED ("ED-HPACT"). Prior qualitative data collection with homeless consumers links their care-seeking experiences to the perception of a welcoming health care environment²¹; in general, homeless persons describe poor compassion and feelings of disrespect from clinicians.^{22,23} As such, we focused on ED-HPACT's acceptability to ED clinicians, whose perspectives can significantly influence homeless patients' experiences.

Methods

Setting and Ethics

The ED-HPACT was established at the VA Greater Los Angeles (GLA), which serves metropolitan Los Angeles. At the time of this study (2012), GLA's catchment region had 6371 homeless veterans on any given night²⁴; GLA's annual ED census was ~29000. The GLA Institutional Review Board formally designated this study as quality improvement.

Intervention

Homeless patients' use of the GLA ED peaked after-hours.¹⁹ As such, ED-HPACT was piloted on 3-weekday evenings/week (5 hours/evening). During clinic hours, all ED patients received routine nursing triage; after triage, only low-acuity patients (Emergency Severity Index [ESI]²⁵ of 4 or 5) were screened for homelessness. ED triage nurses performed homelessness screening using a 3-item instrument developed by the National Center on Homelessness Among Veterans.²⁶ Patients identified as "homeless" or "at-risk for

homelessness" were offered the choice of an ED or ED-HPACT visit.

Those who chose the latter received team-based care from a primary care physician, mental health clinical nurse specialist, and clerks who worked with the homeless and/or mental health patients during business hours and provided clinic coverage as overtime. ED nurses and social workers provided cross-coverage for this colocated clinic. As clinicians who are knowledgeable about homeless persons' unique needs are best equipped to deliver their care,²⁷ ED-HPACT team members were chosen for their prior experiences with homeless patients.

Using the PCMH model,¹¹ ED-HPACT patients received interdisciplinary care focused on their reason for ED presentation. ED-HPACT staff worked collaboratively, with team huddles²⁸ preceding each clinic session and ending each patient visit (including the patient in the end-of-visit huddle). ED-HPACT staff tracked referrals and social service needs. Patients were offered longitudinal ED-HPACT follow-up.

Measures and Analyses

To assess feasibility, conceptualized as the ability to recruit eligible patients,²⁹ we captured (from May to September 2012, the first 5 months of clinic operations) the number of screened patients, positive screens, primary care visits, and unique patients seen.

We conceptualized acceptability as attitudes/beliefs about ED-HPACT; specifically, we assessed perceptions of ED-HPACT recruitment (the homelessness screening tool), attitudes toward its target population (homeless patients), and the clinic itself (with a focus on ED clocation). The Paperwork Reduction Act of 1995 (CFR 1320)³⁰ significantly limits data collection from VA patients for quality improvement initiatives; as such, we focused on the intervention's acceptability to ED clinicians. We sent a 32-item online survey (~10-15 minutes) to ED clinicians (physicians, nurses, social workers, $n = 57$) who worked during clinic hours. Survey participation was voluntary; clinicians received e-mail reminders and an in-person reminder (at a staff meeting) to complete the survey.

Survey questions were derived in part from the Health Professional Attitudes Toward the Homeless Inventory (HPATHI),³¹ a validated 19-item instrument that uses Likert-type scales to assess health professionals' attitudes toward homeless patients. As some questions on the HPATHI are directed toward primary care physicians³¹—and our survey was directed toward interdisciplinary ED clinicians as detailed above—only selected items from the HPATHI were used. Demographics (age, gender, race, ethnicity, job title, and years of ED experience) were also queried. The survey included three questions about homelessness screening (intended only for clinicians performing screening); using Likert-type scales

Table 1. Emergency Department (ED) Clinician Sample Characteristics.

Characteristic ^a	ED Clinicians (n = 32)
Age, years, mean ± SD	41.0 ± 11.4
Gender, n (%)	
Male	13 (40.6)
Female	19 (59.4)
Ethnicity, n (%)	
Hispanic/Latino	1 (3.2)
Not Hispanic/Latino	30 (96.8)
Race, n (%)	
White	13 (41.9)
African American	5 (19.4)
Asian or Pacific Islander	11 (35.5)
Decline to state	1 (3.2)
ED position, n (%)	
Nurse	13 (44.8)
Nursing assistant	6 (20.7)
Social worker	1 (3.4)
Physician	9 (31.0)
Decline to state	3 (9.4)
Years worked in any ED, mean ± SD	9.3 ± 6.1
Years worked in this facility's ED, mean ± SD	6.0 ± 3.7

^a Participants who omitted a given question were not included in the denominator when calculating frequencies for that characteristic.

(1-5, strongly agree–strongly disagree), clinicians were asked if: (1) The homelessness screening tool is easy to use and administer, (2) the homelessness screening tool is the right length/number of questions, and (3) asking about homelessness during triage is the right time to ask patients about homelessness. Clinicians were also asked about their attitudes toward the piloted homeless-tailored primary care clinic colocated with the ED (ED-HPACT). Specifically, using Likert-type scales (1-5, strongly agree–strongly disagree), clinicians were asked to rate the following: (1) Enrollment in the ED-HPACT is an effective way to improve the way that homeless veterans use health services at the VA, (2) I would like to see this ED-HPACT program continue and be expanded to include more VA facilities and homeless Veterans, and (3) colocating HPACT within the ED works well.

Microsoft Excel was used to calculate descriptive statistics. Following established procedures for HPATHI scoring,³¹ we calculated the mean ± standard deviation (mean ± SD) of clinicians' overall attitudes toward caring for homeless patients.

Results

Feasibility

Over the specified 5-month time frame, we performed 312 homelessness screenings (281 unique patients). Among the unique patients, 149 (53%) were "currently homeless," 23 (8%) were "at-risk for homelessness" and 109 (39%) were

housed. Of 172 eligible (currently homeless or at-risk for homelessness) patients, 112 (65.1%) were seen over 215 visits.

Acceptability

Sample Characteristics. The clinician survey response rate was 56% (n = 32). Table 1 describes the sample. The mean ± SD of age was 41.0/11.4 years. Slightly more respondents were female (19, 59.4%) than male (13, 40.6%). Only 1 respondent was Hispanic/Latino (3.2%). Most respondents were white (13, 41.9%), followed by Asian/Pacific Islander (11, 35.5%) and African American (5, 19.4%). Most respondents were nurses (13, 44.8%), followed by physicians (9, 31.0%), nursing assistants (6, 20.7%), persons who declined to state their position (likely to preserve anonymity (3, 9.4%)), and one social worker (3.4%). The mean ± SD of years worked in any ED and this ED, respectively, were 9.3 ± 6.1 and 6.0 ± 3.7 years.

Clinician Attitudes About Homeless Patients. Table 2 presents clinicians' survey responses. The mean ± SD on the HPATHI items was 3.5 ± 0.4. Higher numbers (ranging from 1 to 5) reflect a more positive attitude toward working with homeless people; our findings were similar to HPATHI data found within a primary care resident and faculty sample, who had a mean ± SD of 3.9 ± 0.3.³¹

Acceptability of the Homelessness Screening Tool. Only triage nurses administering screening (n = 12, 37.5% of respondents) answered questions relevant to such. Of these respondents, half (6, 50.0%) strongly agreed or agreed that "The homelessness screening tool is easy to use and administer." Most nurses were neutral (6 of 11 respondents, 54.5%) about the length/number of questions of the tool. Only 3 (27.3%) responding nurses disagreed or strongly disagreed with: "Asking about homelessness during the triage process is the right time during the visit to ask patients about homelessness."

Acceptability of the Colocated ED-HPACT. Most participants (20, 66.7%) strongly agreed or agreed that "Enrollment in ED-HPACT is an effective way to improve the way that homeless Veterans use health services at the VA." Nearly all (28, 90.3%) participants strongly agreed or agreed that "I would like to see the ED-HPACT program continue and be expanded to include more VA facilities and homeless veterans." However, less than half (13, 42.0%) of respondents strongly agreed or agreed with the statement: "Colocating HPACT within the ED works well."

Discussion

Homeless-tailored (PCMH) can decrease acute care utilization among homeless patients.¹ To our knowledge, this is

Table 2. ED Clinicians' Perceptions of ED-HPACT Acceptability.

Domain	ED Clinicians (n = 32)
Selected questions from the Health Professional Attitudes Toward the Homeless Inventory (HPATHI), ^a mean ± SD	3.9 ± 0.3
Acceptability of the Homelessness Screening Tool	
The homelessness screening tool is easy to use and administer, n (%)	
Strongly agree	1 (9.1)
Agree	5 (45.5)
Neither agree nor disagree	3 (27.3)
Disagree	1 (9.1)
Strongly disagree	1 (9.1)
The homelessness screening tool is the right length/number of questions, n (%)	
Strongly agree	1 (9.1)
Agree	2 (18.2)
Neither agree nor disagree	6 (54.5)
Disagree	2 (18.2)
Strongly disagree	0 (0.0)
Asking about homelessness during the triage process is the right time during the visit to ask patients about homeless	
Strongly agree	1 (9.1)
Agree	4 (36.4)
Neither agree nor disagree	3 (27.3)
Disagree	3 (27.3)
Strongly disagree	0 (0.0)
Acceptability of the ED-HPACT	
Enrollment in ED-HPACT is an effective way to improve the way that homeless veterans use health services at the VA (n, %)	
Strongly agree	6 (20.0)
Agree	14 (46.7)
Neither agree nor disagree	5 (16.7)
Disagree	4 (13.3)
Strongly disagree	1 (3.3)
I would like to see the ED-HPACT program continue and be expanded to include more VA facilities and homeless veterans	
Strongly agree	8 (25.8)
Agree	20 (64.5)
Neither agree nor disagree	1 (3.2)
Disagree	1 (3.2)
Strongly disagree	1 (3.2)
Colocating HPACT within the ED works well	
Strongly agree	2 (6.5)
Agree	11 (35.5)
Neither agree nor disagree	10 (32.3)
Disagree	4 (12.9)
Strongly disagree	4 (12.9)

Abbreviations: ED, emergency department; HPACT, Homeless Patient Aligned Care Team; VA, Veterans Affairs.

^a Higher numbers (range 1-5) represent more positive attitudes toward working with homeless patients.

^b Some respondents omitted particular questions; percentages were calculated based on the total number of respondents to that question.

that the ED-HPACT model is feasible with regard to patient recruitment, acceptability data surrounding clinicians' attitudes/beliefs were mixed. ED clinicians generally expressed neutral or positive attitudes toward homeless patients and screening for homelessness as part of triage. However, though most clinicians perceived the homeless-tailored primary care clinic as useful, only a minority agreed that colocation with the ED worked well.

These mixed acceptability findings—particularly in the domain of ED colocation—likely stem from several sources. First, the ED-HPACT used ED nurses and social workers for cross-coverage; such competition for resources and increased workload may cloud ED clinicians' perceptions of the clinic's acceptability. Second, ED clinicians may have negative attitudes about colocation due to concerns that it may reinforce the perception that EDs are best-used for psychosocial needs, for example, food or shelter,¹⁰ as opposed to acute care; building a homeless-tailored PCMH with strong linkages to the ED (without colocation) may be more acceptable to ED clinicians. Last, ED clinicians may prefer that a co-located PCMH serve their most "challenging" homeless patients, for example, high-utilizers of ED services or consumers who are difficult to engage in care. To better understand these acceptability data, future directions include qualitative data collection with these ED clinicians, specifically exploring perceived concerns regarding ED colocation. Shortly after this feasibility and acceptability study, we consulted with hospital and ED leadership to explore ways to enhance the clinic's acceptability; with guidance from these key informants, this collocated PCMH shifted its recruitment to focus on ED high-utilizers^{32,33} who were experiencing homelessness (a priority population for ED staff and leadership). By removing the screening burden from ED triage nurses and selectively serving the ED's more challenging patients, we suspect that this new model will be more acceptable to ED clinicians. Moreover, a focus on high-utilizing patients may improve the PCMH's cost-effectiveness. This new model of care is currently being studied as part of a national-level HPACT evaluation.

Despite these acceptability findings, respondents' generally had neutral or positive attitudes toward homeless patients (as captured by the HPATHI).³¹ This vulnerable population presents unique challenges—given their competing needs⁷ and fragmented health service use⁵—and little is known about ED clinicians' attitudes toward homeless patients. Our data suggest that ED clinicians may perceive some degree of personal responsibility toward this population. This finding may hold implications for homeless patients' experiences in and satisfaction with ED care²²; additionally, it speaks to the potential utility of engaging ED clinicians in homeless-focused initiatives, for example, developing rotations for ED physician trainees in primary care clinics that serve homeless persons.

the first study to explore co-location of a homeless-tailored primary care clinic and ED. Though our findings suggest

Limitations

This is a case study in one urban VA; findings may not extrapolate to other geographic regions or other health systems. Our feasibility data surrounding patient recruitment were limited; future studies could assess differential demographic and clinical characteristics of patients by screening results and empanelment status. Moreover, additional data collection could better ascertain reasons for patients' choice to seek care in the ED versus HPACT, as well as the decision regarding clinic empanelment. Beyond feasibility and acceptability data, it would be additionally valuable to gather mixed methods data about barriers to and facilitators of implementation of this innovation in the context of routine care, as well as with spread to other sites.

The Paperwork Reduction Act of 1995 was a significant barrier to collecting acceptability data from patients for quality improvement³⁰; our acceptability data collection is limited to surveys with ED clinicians. Yet, prior research demonstrates associations between homeless consumers' health-seeking experiences and clinician perceptions/attitudes,²¹⁻²³ suggesting that our findings are relevant for patient perceptions. However, future primary data collection from ED-HPACT patients is critical, measuring the clinic's acceptability to patients, probing for their alternatives available for primary care receipt, and also assessing patient satisfaction. Last, ending veteran homelessness is a publicized VA goal¹⁵; given social desirability biases, clinicians may respond positively to attitudinal questions regarding homelessness.³⁴

Conclusions

Homeless adults experience barriers to traditional primary care⁷ and often use the ED for chronic disease management and to address their social needs.^{5,10} Homeless-tailored PCMH decrease acute care use for homeless consumers¹; we suggest the feasibility of patient recruitment in colocating this specialized clinic with the ED. Though ED clinicians expressed mixed views about the acceptability of this pilot initiative to colocate such a clinic with these ED, these formative data led to ongoing quality improvement efforts, including engaging with key informants (ED/hospital leadership) to develop a new focus on engaging high-utilizing homeless consumers (with the goal of increasing acceptability among ED clinicians). This changed focus, with increased engagement of leadership, has additionally strengthened institutional commitment to the ED-HPACT, which has continued for 4 years since its inception. Future studies should continue to explore the feasibility and acceptability of future iterations of this colocated homeless-focused PCMH—using mixed-methods data collection from patients and clinicians—while exploring the health, housing, costs, and implementation outcomes of this innovation.

Acknowledgments

The authors would like to thank the physicians, nurse practitioners, nurses, nursing assistants, social workers, and medical support assistants who worked in the emergency department and ED-HPACT during this quality improvement project, as well as the veterans who received care in the ED-HPACT. We also acknowledge Dr Ronald Andersen for his invaluable contributions to this work.

Authors' Note

The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States Government.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was undertaken in part through the Veterans Administration's PACT Demonstration Laboratory initiative, supporting, and evaluating VA's transition to a patient-centered medical home. The VA Office of Patient Care Services provides funding for the PACT Demonstration Laboratory initiative.

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Author Biographies

Sonya Gabrielian, MD, MPH, is a psychiatrist and health services researcher at the VA Greater Los Angeles (VAGLA). She is an investigator at the VA Los Angeles HSR&D Center of Innovation (COIN) and the VISN22 Mental Illness Research, Education, and Clinical Center (MIRECC), an affiliated researcher with the National Center on Homelessness Among Veterans, and an assistant clinical professor at the UCLA David Geffen School of Medicine (DGSOM).

Jennifer C. Chen, MD, MPH, is a physician practicing emergency medicine and internal medicine at Harbor-UCLA Medical Center. She also serves as the Patient Safety officer for Harbor-UCLA Medical Center and is an associate clinical professor at the UCLA DGSOM.

Beena P. Minhaj, DrPH, MPH, is a Practice Management consultant for CEP America. Her doctoral dissertation focused on the implementation of the patient-centered medical home for homeless Veterans at the VAGLA.

Rishi Manchanda, MD, MPH, is the president and founder of Health Begins, a social network that teachers and empowers

clinicians to improve health where it begins—in patients' home and work environments. He was previously the lead physician in VAGLA's HPACT.

Lisa Altman, MD is the Associate Chief of Staff for Healthcare Transformation and Innovation at the VAGLA and a Clinical Professor at the UCLA DGSOM. She is a physician leader and implementation partner with the VA Los Angeles HSR&D COIN and has a 25 year practice in women's integrated healthcare. She led the implementation of the ED-HPACT pilot described in this manuscript.

Ella Koosis, MPH, is a Health Science Specialist at the VA Greater Los Angeles. She coordinates research studies and quality improvement initiatives at the VA Los Angeles HSR&D COIN and the VISN22 MIRECC.

Lillian Gelberg, MD, MSPH is a family physician, health services researcher, and professor in UCLA's Department of Family Medicine and Field Schooling of Public Health, and the VAGLA. She is an elected member of the National Academy of Medicine (Institute of Medicine) of the National Academy of Sciences.