

Establishing a pharmacist-managed outreach clinic at a day shelter for homeless veterans

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Abstract

Introduction: The US Department of Veterans Affairs (VA) has developed a homeless patient aligned care team (H-PACT) model to provide clinical outreach to homeless veterans. This model has not been implemented by the VA Sierra Nevada Health Care System; however, a day shelter for homeless veterans does exist. Currently, clinical staff at the shelter consists of licensed clinical social workers.

Methods: A half day per week pharmacy clinic was established and managed by a postgraduate year-2 psychiatric pharmacy resident. Data regarding provider and emergency department (ED) visits, psychotropic medication adherence, and interventions made during visits were collected and analyzed to provide support for need of additional clinical staff and the establishment of an H-PACT at the Reno VA.

Results: Over 5 months, 52 veterans were seen, including some over multiple visits, with a total of 77 encounters. There were an average of 4 visits per clinic day. Total interventions equaled 205 and included medication review, patient education, and adverse drug reaction detection among other interventions. Provider visits and psychotropic medication possession prior to and following clinic visits were tracked.

Discussion: This pharmacist-managed outpatient clinic provided a comfortable walk-in environment for homeless veterans. The difference in provider visits, medication possession, and ED visits before and after walk-in clinic visits provided clinical significance with 205 documented interventions, and the clinic was well received by veterans.

Keywords: veteran, shelter, homeless, psychiatric, mental health, walk-in clinic

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Introduction

In 2009, the US Department of Veterans Affairs (VA) announced its goal to end veteran homelessness.¹ More than 40 000 veterans were experiencing homelessness in

the United States according to a point-in-time (PIT) count, assessed on 1 night in January 2017.² The VA uses the PIT count to estimate the number of veterans who are homeless per state and continuum of care (CoC). Funding is provided to each geographic area, and the CoCs are then able to coordinate homelessness services appropriately. The homeless population, including veterans, has varying needs, including finding housing, employment, and health care. In 1 study,³ homeless individuals were less likely to fill psychotropic medications, and the authors suggested unstable living conditions made it more difficult to obtain and store medications and maintain a medication regimen. Many other factors may contribute to low medication adherence, including changes in providers, lost or stolen medications, and lack of transportation to a

pharmacy or no address at which to receive mailed prescriptions. To address these needs, in 2012, the VA developed teams called homeless patient aligned care teams (H-PACTs), which provide services, including case management, housing placement, benefits servicing, substance use and mental health treatment, and clothing in a clinical setting. Since the inception of H-PACT clinics, the VA⁴ reports 31% fewer emergency department (ED) visits and 24% fewer hospitalizations in H-PACT patients compared to non-H-PACT patients.

According to 2017 PIT count data published by the US Department of Housing and Urban Development (HUD), there were a total of 125 veterans in the Reno/Sparks/Washoe County CoC without safe, stable housing.⁵ Although some homeless veterans may receive care through the Veterans Affairs Sierra Nevada Health Care System in Reno, Nevada, and its community-based outpatient clinics, it can be difficult to locate or contact these veterans with information regarding their health care needs. As a result, homeless veterans often rely on EDs for as-needed care and endure without the benefits of chronic and preventative care.⁵

At the Veterans Affairs Sierra Nevada Health Care System, although there is no H-PACT, there is an already-established day shelter for homeless veterans located off campus named Capitol Hill. This shelter provides outreach and offers entry into treatment programs via the Health Care for Homeless Veterans Program.⁶ Capitol Hill also serves as a pathway for veterans to find a home via US HUD-VA Supportive Housing (HUD-VASH).⁷ Licensed clinical social workers (LCSWs) are currently the sole clinical workers at the shelter.

Previous studies have shown integrating clinical pharmacy specialists (CPSs) into a similar outreach clinic led to improvement in medication adherence rates,^{8,9} a decrease in polypharmacy and provider follow-up time,⁸ or improvement in depression and anxiety scores¹⁰ at the conclusion of their studies. Based on the success of such clinics and the absence of a pharmacy clinic at Capitol Hill, this project intended to fill a clinical gap in care by introducing a pharmacist into the team. Based on results of this project, there would be potential for development of a permanent pharmacy clinic at the shelter.

This quality improvement project aimed to incorporate a postgraduate year 2 (PGY2) psychiatric pharmacy resident into the Capitol Hill day shelter to run a half day per week clinic to meet with veterans, discuss concerns, and document interventions made. At the conclusion of the project, the impact of the outreach clinic was evaluated by assessing total number and type of interventions made by the pharmacist.

Objectives

This project was designed to initiate a pharmacist-run walk-in clinic at a VA day shelter to increase provider follow-up; provide referrals or prescribe medications for untreated conditions; improve medication adherence; identify adverse drug reactions, drug-drug interactions, and polypharmacy; provide mental health assessment scoring; and decrease ED visits for homeless veterans. All data collected was used to provide support for the development of an H-PACT at the Reno VA.

Methods

The institutional review board at the University of Nevada-Reno reviewed the project and determined it a nonresearch quality improvement project. From October 17, 2018, to February 27, 2019, a walk-in pharmacy clinic was established and run by a PGY2 psychiatric pharmacy resident for a half day per week at the Capitol Hill day shelter. Veterans waiting to use laundry or shower facilities or for a scheduled LCSW appointment could visit, be referred by social workers, or be encouraged by the resident to attend the clinic with medication or VA care questions. A group room was converted to the pharmacy clinic and was located conveniently near the shower and laundry facilities to encourage attendance. A computer was available to the resident with access to veterans' charts via the VA electronic computerized patient record system. The clinic was supervised by the PGY2 psychiatric pharmacy residency director, who is a board-certified psychiatric CPS.

During each visit, concerns posed by the veteran were discussed, and appropriate interventions were made. Time allotted for each clinic visit was incumbent upon the needs of the veteran with visits lasting from 5 to 30 minutes. The project designers believed a flexible schedule would make the clinic more accessible to veterans. All interventions were recorded in a password-protected computer database. Interventions were also recorded in veterans' charts with the exception of quick questions from veterans in the waiting room. *Quick questions* referred to veterans requesting uncomplicated refills or asking how to establish with a service at the VA hospital. Although these were not documented in veterans' charts, they were counted in the total number of interventions in the computer database, counted primarily under the sub-headings *patient education* and *refills* in Table 1.

Data were collected to assess the number of provider (primary care, psychiatry, specialty clinic, etc) and ED visits 30 days prior to and 30 days following each veteran's Capitol Hill visit. Medication possession (including antidepressant, antipsychotic, anxiolytic medications, etc) was also logged.

TABLE 1: Encounters and interventions documented

Encounter/Intervention	No.
Veterans seen (51 men, 1 woman)	52
Returned to clinic, visits	
2	13
3	6
4	5
5	1
Total encounters	77
Clinic days ^a	18
Clinic hours (4 h/d)	72
Average encounters/clinic day	4.27
Total interventions	205
Medication review	47
Referrals made ^b	34
Follow-up scheduled ^b	9
Patient education	39
Assessment tools used	22
Mental state examination	17
Depression screening	3
Mania screening	2
Medication dose adjustment	1
Medication discontinued	3
Medication initiated	5
Refills	17
Drug-drug interaction detected	4
Adverse drug reaction detected	4
Labs ordered	1
Labs monitored	5
Nonveterans medications identified	3
Decreased polypharmacy	3
Given supplies	8

^aOctober 17, 2018, to February 27, 2019.

^bSee Table 2 for further information.

Results

Fifty-two veterans attended the walk-in clinic over 18 clinic days. Thirteen veterans attended the clinic more than once. A total of 77 encounters were documented, and an average of 4.27 encounters per clinic session were calculated (Table 1).

A total of 205 interventions were documented (Table 1), including 47 medication reviews, 39 patient education events (ie, use of glucometer, medication counseling, discussion of using VA benefits), and 22 mental health assessments (mental state examination, depression, or mania screening), among other interventions. There were 34 referrals offered to primary care, mental health, or other specialty clinics (to establish care or follow-up on labs or medication changes) with 13 appointments

TABLE 2: Referrals offered and referrals scheduled during clinic

Referral	No. Referrals (No. Completing Follow-Up)
Referrals offered	34 (13)
Primary care	12 (6)
Social work	1 (1)
Neurology	1 (1)
Establish with Veterans Affairs	2 (1)
Mental health	10 (1)
Optometry	1 (0)
Emergency department	7 (3)
Referrals scheduled	9 (2)
Primary care	1 (1)
Mental health	3 (0)
Walk-in clinic	4 (1)
Long-acting antipsychotic injection	1 (0)

attended. Nine referrals were scheduled in real time while the veteran was present in the clinic with 3 of these appointments attended (Table 2).

Comparing follow-up with any VA provider by the veteran 30 days prior to and following intervention, there was an increase by 9 visits (33 vs 42 visits, respectively) following intervention. The ED visits by veterans seen in the clinic decreased from 33 prior to clinic visit to 30 following intervention (Figure).

Seventeen veterans were prescribed psychotropic medications, and possession of current medications appeared to slightly increase following clinic visits when calculating a medication possession ratio at 30 days prior compared to 30 days following intervention (Figure); however, this project was not powered to calculate statistical significance due to short length of project time.

Discussion

The 205 total interventions documented during the 4.5 month clinic demonstrates its clinical significance. The resident was able to integrate the clinic into the already-established day shelter and adjust services to the specific needs of that veteran population. Providing a comfortable, flexible clinical environment for homeless veterans was in high demand. Per direct discussion with the veterans, many avoided the hospital for follow-up appointments due to frustration with long wait times and for fear of being admitted to the hospital. The clinic was readily accepted by LCSWs who often referred patients following their scheduled appointments.

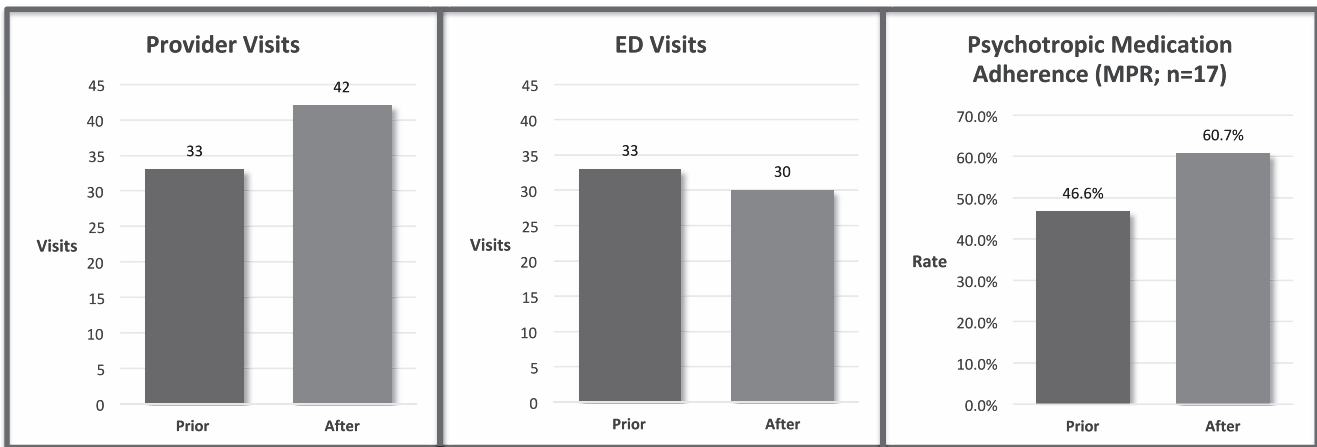


FIGURE: Comparison of visits and adherence 30 days prior to and 30 days following Capitol Hill clinic (ED = emergency department; MPR = medication possession ratio)

Examples of interventions listed in Tables 1 and 2 include the following:

- Trazodone dose decreased and advised medication be taken earlier in the evening for veteran with schizophrenia wishing to decrease dose of olanzapine. Antipsychotic dose had been stable for several years; however, veteran experiencing lethargy. Reported feeling more alert after change.
- Reviewed discharge paperwork as requested by veteran and addressed concerns regarding follow-up appointments. Chart review revealed primary care provider was never made aware of his admission. Contacted provider to schedule follow-up.
- Veteran exhibiting clear signs of hyperglycemia (excessive thirst, frequent urination) agreed to check blood glucose in clinic. Glucometer read *HI* (greater than 600 mg/dL), and LCSW was advised to take veteran to the ED immediately for assessment, where he was treated for severe hyperglycemia.

Limitations of the project included a brief time frame, inhibiting ability to calculate statistical significance, *traveling veterans* (those who visit multiple VA and community hospital sites for treatment across the country), and the absence of scheduled appointments.

As the resident was able to successfully integrate into this clinic setting part time, an opportunity has presented for a full-time CPS to devote more time to the clinic in the future. A more strict 15-minute appointment may increase the number of veterans able to be seen in the clinic. At that time, it would be useful to quantify a comparison of medication adherence prior to and following clinic intervention.

It proved difficult to find retrospective and prospective data on traveling veterans, such as follow-up visits and refill history. Three veterans referred to the ED following

their clinic visit who followed through with those referrals contributed to the number of veterans visiting the ED following clinic visit (1 project objective was to decrease this count). This, however, provided necessary care to the veterans who otherwise may not have been referred. In addition, the VA ED was placed on divert to other hospitals when VA hospital beds were full an average of 16 days per month during the clinic data-collection period, which may have influenced visit data before and after intervention.

Scheduling appointments with veterans in collaboration with an LCSW and a nurse practitioner (NP) would likely be beneficial to increase clinic numbers; however, a flexible walk-in clinic was reasonably the best approach for a new clinic in this setting as availability was increased.

Other challenges included the workspace and day when the clinic was held. Although a computer was available, the group room, which was converted to the Wednesday clinic, was less than ideal, as supplies, including glucometers, blood pressure monitor, and suicide prevention materials, were unable to be stored in the otherwise public space. Wednesdays were acceptable for the clinic; however, a food bank delivers groceries to the shelter on Tuesdays once monthly, which brings a large crowd of veterans to the shelter. Although specific to this clinic, it would be prudent to consider these challenges by considering adequate access to supplies and teasing out higher volume shelter days when establishing a similar clinic elsewhere.

Since clinic initiation, an NP has joined the team at Capitol Hill and has scheduled appointments with veterans much like those scheduled to see LCSWs. The pharmacy resident continued the weekly clinic until the end of the residency year July 5, 2019, and the clinic was expected to continue into the next year with further data collection.

Conclusion

This once weekly, half-day clinic produced 205 clinically significant interventions and showed an increase in provider follow-up and medication adherence and a decrease in ED visits. Future plans for the clinic include using current data to compare medication adherence before and after clinic visit and comparing ED and provider visits 1 year prior to and following veteran intervention to test statistical significance of clinic data collected. Looking forward, a psychiatric CPS will replace the resident, and as the clinic grows, other providers, including a psychiatrist and psychologist, will be recruited to join the CPS and NP to provide the foundation for successful H-PACT establishment at the Reno VA.

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