OPEN SUBMISSIONS

mhc MENTAL HEALTH CLINICIAN

INNOVATIVE PRACTICE Open Access

Implementation and evaluation of a pharmacist-run mental health treatment clinic via clinical video telehealth

Molly Leach, PharmD, BCPS[1]
Guadalupe Garcia, PharmD, BCPP[2]
Nicole Ganzer, PharmD, BCPS[3]

How to cite: Leach M, Garcia G, Ganzer N. Implementation and evaluation of a pharmacist-run mental health treatment clinic via clinical video telehealth. Ment Health Clin [Internet]. 2016;6(3):159-64. DOI: 10.9740/mhc.2016.05.159.

Abstract

Introduction: The Veterans Health Administration is extending its mental health services to reach those in rural areas who find it difficult to travel to a Veterans Affairs Medical Center (VAMC). This project aimed to outline implementation of a Pharmacy Mental Health Clinical Video Telehealth (MHCVT) clinic for veterans. Secondary endpoints were to assess patient satisfaction with MHCVT, describe the potential benefits of this clinic regarding travel saved, and summarize no-show rates.

Methods: Veterans received mental health disease state medication management from a mental health clinical pharmacy specialist via clinical video telehealth (CVT) in place of an in-clinic appointment and were asked to complete a satisfaction survey after the initial CVT appointment. Data collected from all veterans enrolled in the CVT clinic from September 8, 2014, through March 23, 2015 included: patient demographics, service connection percentage, number of CVT visits, travel miles saved, travel reimbursement, no-show rate, and documentation of medication management therapy.

Results: As of March 23, 2015, there were 22 veterans enrolled in the MHCVT clinic, of whom, 19 completed their appointments. Of the 48 potential encounters, 7 were considered a no-show (17%). On average veterans saved 34 travel miles per visit with cumulative savings of 1432.6 miles. Of those who were eligible to receive travel reimbursement (n = 13), the medical center potentially saved $674.50 in a 7-month period. Overall clinic satisfaction per survey (n = 14) was 100% (strongly agreed or agreed). A majority (93%) would recommend the clinic to other veterans.

Conclusions: This project successfully implemented a MHCVT pilot clinic. The veterans were satisfied with the services. The 41 clinic visits resulted in a potential cost savings. Expansion of this clinic in the future will expand more mental health resources to veterans.

Keywords: clinical video telehealth, pharmacist, mental health

[1] (Corresponding author) Clinical Pharmacy Specialist - Telehealth: Primary Care/Mental Health, West Palm Beach Veterans Affairs Medical Center, West Palm Beach, Florida, molly.leach@va.gov; [2] Clinical Pharmacy Specialist - Mental Health, West Palm Beach Veterans Affairs Medical Center, West Palm Beach, Florida; [3] Clinical Pharmacy Specialist - PTSD and Substance Abuse, West Palm Beach Veterans Affairs Medical Center, West Palm Beach, Florida

Background

Mental health treatment is an important aspect of integrated care for the veteran population. More than 1.3 million veterans received mental health treatment in 2011.[1] Approximately 10% to 20% of the veterans who served in Operations Enduring Freedom and Iraqi Freedom receive a diagnosis of posttraumatic stress disorder (PTSD), and there is an even higher percentage of veterans with PTSD who participated in the Desert

Storm and the Vietnam wars.[2] Treatment of mental illness is a growing field in the Veterans Health Administration, and facilities are expanding their mental health services to reach those unable to attend appointments at the main Veterans Affairs facilities.

In order to expand care and provide health care services to more veterans, the West Palm Beach Veterans Affairs Medical Center (WPB VAMC) has 6 community-based outpatient clinics (CBOCs) that offer services, such as outpatient medical health care. If a specialty service (eg, psychiatric pharmacy service) is not offered at that CBOC, the veteran may be required to return to WPB for those services.

To provide a greater range of services to more veterans, especially those in rural places, the Veterans Health Administration has adopted technologies to aid in providing real-time health care via clinical video telehealth (CVT).[3] CVT services use a video monitor, computer, and audio transmission to enable a virtual connection between the provider and the patient, and this allows the patient to travel to his or her closest CBOC to receive care through CVT services rather than traveling to the main hospital campus. The WPB VAMC, affiliated CBOCs, and specific providers are equipped with the appropriate technology and staffing to allow for a single main campus clinic to see patients at multiple CBOC sites. Promising data involving mental health telehealth and home telehealth services have emerged in many states across the United States.[4-7]

The WPB VAMC offers an extensive pharmacist-run mental health service, including medication management and care for veterans with PTSD, schizophrenia, depression, dementia, anxiety, sleep disturbances, smoking cessation, and substance abuse. These clinics are managed by Clinical Pharmacy Specialists (CPSs) who function as midlevel practitioners with a scope of practice allowing for prescribing of medications and ordering of labs or vitals. Most mental health specialty services are not offered directly at the CBOC or outpatient clinic sites, and veterans who wish to receive these services must be seen at the WPB VAMC. This pilot project aimed to provide mental health medication management services through a Pharmacy Mental Health CVT (MHCVT) clinic to veterans at the various CBOCs.

Purpose

The primary objective of this project was to outline the processes involved in implementing an MHCVT clinic for veterans with mental health diagnoses. Secondary objectives included the assessment of patient satisfaction with CVT through a Veterans Affairs' approved patient satisfaction survey, the quantification of distance and time saved, and the summarization of no-show rates.

Methods

Clinic Setup

Enrollment into the MHCVT clinic began September 8, 2014. Veterans were enrolled into the MHCVT clinic via a consult service from mental health providers at the WPB VAMC. Veterans in the mental health clinic were first assessed by a psychiatrist prior to enrollment into the clinic. If there was any physical assessment needed during the initial CVT appointment (eg, labs, blood pressures, waist circumference), orders were placed via the consulting provider at the time the consult was placed, or by the CPS at the time of the visit. All labs and vitals were performed by the Telehealth Clinical Technician prior to the veteran leaving the clinic visit. A Telehealth Clinical Technician is a WPB VAMC employee (usually a registered nurse or licensed practical nurse) who assists with scheduling follow-up appointments, connecting via CVT equipment, measuring vitals, and taking bloodwork for labs. The initial MHCVT clinic appointments were 1 hour in length, and subsequent follow-up visits were scheduled in 30-minute increments. The clinic started with availability at only 2 sites but eventually opened up to all 6 CBOCs because of the need for additional mental health services, such as selective serotonin-reuptake inhibitor (SSRI) follow-up.

The additional service of an SSRI follow-up clinic was requested by primary care to help meet a 14-day follow-up standard for the WPB VAMC. Follow-up for SSRIs included assessment for suicidality, adherence (per self-report), and adverse effects. The primary care service agreed to have the SSRI managed by the MHCVT CPS under the CPS's scope of practice. If the veteran wished to continue to be seen by the MHCVT CPS, he or she was rescheduled approximately 4 to 6 weeks after the initial visit to assess for response to the medication. After SSRI management was complete, veterans were discharged from the clinic back to their primary care provider.

All veterans were asked to complete a satisfaction survey after the initial CVT clinic appointment. Because there was no pharmacy on-site at any of the CBOCs, refills and new prescriptions were mailed out. If a medication was needed the same day, the veteran could drive to the main medical center to pick the prescription up, or the primary psychiatrist/provider could call in the medication to the nearest pharmacy.

Data Collection

Data were collected and analyzed from those enrolled in the CVT clinic from September 8, 2014, through March 23, 2015. Data collected included the following: patient demographics (age, sex, mental health diagnoses per

TABLE 1: Patient characteristics

Patient characteristics (N = 19)	
Age, y, ±SD	64 ± 10.27
Male, %	90
Service connected greater than 30% for a mental health disorder, No. (%)	6 (31.6)
Service connected greater than 30%, No. (%)	13 (68.4)
Travel reimbursement—Yes, No. (%)	13 (68.4)
Average distance from home to community-based outpatient clinic (one-way), miles	11
Average distance from home to WPB VAMC (one-way miles)	45
Average distance saved (one-way), miles	34

WPB VAMC = West Palm Beach Veterans Affairs Medical Center.

the *Diagnostic and Statistical Manual*, 5th ed.[8]), service connection (none, ≥30%), location of primary care services, description of referring practitioner, (eg, psychiatrist, nurse practitioner, physician's assistant), number of follow-up visits with the CPS, distance from the veteran's home to the WPB VAMC, distance from veteran's home to the CBOC where CVT clinic appointment occurred, travel distance saved (in miles; distance from veteran's home minus distance to CBOC), eligibility for travel reimbursement (Yes or No), MHCVT no-show rate from clinic initiation to present, documentation of medication management therapy (initiated medications, changed medication dose or frequency, discontinued medications), and results from a VA locally approved satisfaction survey.

Travel Reimbursement

Travel reimbursement was calculated by first determining whether the veteran was eligible for travel pay. Veterans were eligible for travel reimbursement for any medical visit if they had more than 30% service connection, or for veterans with less than 30% service connection if the visit was for a service-connected reason. For those eligible, reimbursement was 41.5 cents per mile. To calculate the cost saved by the WPB VAMC, the difference in mileage saved from going to the CBOC instead of the WPB VAMC was multiplied by 2 (round trip) and multiplied by 41.5 cents per mile. To receive travel reimbursement, veterans are required to fill out paperwork for each visit; it was unknown during the project how many veterans who were eligible actually filed the paperwork; therefore, all values of cost savings reported are theoretical savings.

Results

As of March 23, 2015, there were 22 veterans enrolled in the WPB MHC CVT clinic. Table 1 summarizes the data collected, such as patient demographics, potential travel reimbursement, and CBOC location. Clinic demographics are represented by Table 2. Of the 22 veterans scheduled into the clinic, 19 completed their appointments (3 patients did not show for a total of 7 appointments). Of the 48 encounters documented, 7 were considered a no-show to the appointment, which resulted in a no-show rate of 17%.

Table 3 provides the potential cost savings of the MHCVT clinic. All distances reported are one-way. For travel reimbursement calculations, all mileage was multiplied by 2 for round-trip values. The average distance from the veterans' homes to the WPB VAMC was 45 miles, and the average distance from veterans' homes to their CBOC location was 11 miles. The total of miles saved was 1432.6. The average miles saved per veteran was 34 miles. Of those who received travel reimbursement (n = 13), the medical center potentially saved $674.50 in a 7-month period.

The primary mental health disorders managed are depicted in Table 4 and included Major Depressive Disorder (68.4%), PTSD (52.6%), anxiety disorder (26.3%), and bipolar disorder (15.8%). Other diagnoses included substance use disorder (cocaine, alcohol, tobacco, benzodiazepine, and opiate), insomnia, and neurocognitive disorder. Medication management changes were made during 38 encounters and included initiation, titration, and/or discontinuation of medications within the CPS's scope of practice.

There were 14 surveys that were received during the project period. A summary of the survey results are listed in Table 5 and represented in the Figure. Of those that answered the survey, overall satisfaction of the clinic was 100% (strongly agreed or agreed). A majority (93%) would recommend the clinic to other veterans. The veterans were able to hear and see the provider well, and overall the clinic was well received. There was one visit in which the equipment malfunctioned because of inclement weather conditions (severe thunderstorm), but no other technical difficulties occurred. The CVT equipment was disconnected for approximately 10 minutes, but it was restored and the clinic appointment was then continued. There was one incident in which a veteran had to be further evaluated because of symptoms of shortness of breath and dizziness, and it was determined that the veteran had elevated blood pressure. The veteran was assessed in a timely fashion at the CBOC and received the necessary care without any difficulties.

Discussion

The purpose of this pilot project was to detail the implementation of a MHCVT clinic and evaluate the benefits of this service on travel mileage saved for the

TABLE 2: Clinic demographics

Clinic Demographics (N = 19)	Value
Clinic use, encounters/available slots, %	30
No. of veterans scheduled	22
No. of veterans seen	19
No. of total encounters	41
No. of 30-minute encounters	37
No. of 1-hour visits	4
No. of no-show visits	7
No. of surveys received	14
No. of SSRI follow-up (only) patients	4

SSRI = selective serotonin-reuptake inhibitor.

veteran, as well as travel reimbursement costs saved by the WPB VAMC. Additionally, this project aimed to assess patient satisfaction of the mental health services provided. The clinic was initiated as an MHCVT clinic but expanded to cover primary care SSRI follow-up. This increased the number of visits and added another pharmacist-provided resource for primary care providers at the CBOCs.

The clinic was able to serve 19 veterans within the allotted project period. A majority of referrals were made by a psychiatrist, or physician assistants. The overall satisfaction rate of the clinic was high and veterans were able to use the services without complication. The satisfaction with the clinic and the potential cost savings to the WPB VAMC indicates that this pilot clinic, if held every day of the week, could provide additional mental health services and travel reimbursement cost savings if continued. It can also be assumed that the monetary savings will continue to accrue as the clinic enrollment increases and veterans will be able to use resources that were not previously offered to them by CPS.

Implementation of the clinic was a successful process. The equipment was provided by the WPB VAMC. This facility had already had this equipment on hand from previous purchases; cost may be a barrier to attaining the equipment at other facilities.

TABLE 3: Cost savings for West Palm Beach Veterans Affairs Medical Center

Cost Savings	
Mileage savings for travel reimbursement–eligible veterans—round trip, miles	1495.58
Cost per mile, cents	41.5
Total potential cost savings, dollars	674.50

TABLE 4: Mental health diagnoses[a]

Mental Health Diagnoses (N = 19)	No. (%)
Major Depressive Disorder/depression	13 (68.4)
Anxiety	5 (26.3)
Bipolar disorder (I/II)	
Posttraumatic stress disorder	10 (52.6)
Other[b]	10 (52.6)

[a]Patient could have more than one diagnosis. Averages reported are diagnoses per patient.

[b]Other includes substance use disorder, insomnia, neurocognitive disorder, and borderline personality disorder.

Clinic use was low (30%), but this could be due to numerous factors. This was a pilot clinic and the referring providers were not fully aware of the capabilities and scope of the mental health CPSs. There were more referrals at the end of the project, and it can be assumed that referrals would continue to grow as the providers work with the CPSs and learn how valuable the service is to the medical center. The clinic was set up for a short period of time because of the time constraints of the initial pilot project. It is difficult to extrapolate the full clinic potential financially within this short time period. The SSRI follow-up was started halfway through the project, and availability was needed at all of the CBOCs, although there were not as many patients who needed follow-up as originally planned. This created an additional 2 hours of available time, with a smaller population to occupy such clinic openings. This also potentially skewed the clinic use statistics. Clinic use was calculated by dividing the number of available clinic appointments by the number of veterans that were scheduled. The no-show rate was 17%, but because of the small sample size, this project cannot be compared to the regular mental health clinic no-show rate.

The pharmacist-run mental health clinic offers an alternative method to increase access for patients and allow for closer follow-up. Mental health is a field in which patients may need follow-up every 4 to 6 weeks to assess for medication response or side effects. For those who are deemed at high risk for suicide, they may have to be seen weekly or biweekly for medication management. Because mental health is a large and growing field, especially for our veterans, there is a continued need for additional ways to provide excellent quality and accessible care. This clinic allowed veterans to have their mental health disease states managed while additionally saving the WPB VAMC money for travel reimbursement.

TABLE 5: Satisfaction survey

	Strongly Agree, No.	Agree, No.	Neutral, No.	Disagree, No.	Strongly Disagree, No.	N/A, No.
Overall Satisfaction	8	6	...	...	...	...
Would Recommend to Others	8	5	1	...	...	...
Received Good Care	...	...	...	...	...	...
Needs Were Met	9	4	1	...	...	...
Comfortable With the Equipment	9	5	...	...	...	...
Able to See Provider	10	4	...	...	...	...
Able to Hear Provider	11	3	...	...	...	...
Privacy Respected	9	3	1	1	...	...
More Comfortable in Person	2	3	5	4	...	...
Someone to Help with Problems	9	2	1	...	...	3
Easier than in Person	3	6	4	1	...	...

N/A = not applicable.

In addition to a lower clinic use and a no-show rate of 17%, there were other limitations to the implementation of the clinic. Not all surveys were collected, and it is unclear whether the veteran chose not to fill out the survey, if it was lost in transit, or if the patient did not receive one. There were a number of positive responses to the question regarding "rather see the provider in person." Because this was a 5-response Likert scale, it may be due to the positive written nature of the question as to why some responded "strongly agree or agree." Another barrier may have been that the CPSs were not able to go directly to each CBOC or to the mental health providers and discuss the mission of this pilot project and educate others on what CPSs can do within the WPB VAMC. This educational outreach could increase the number of consults.

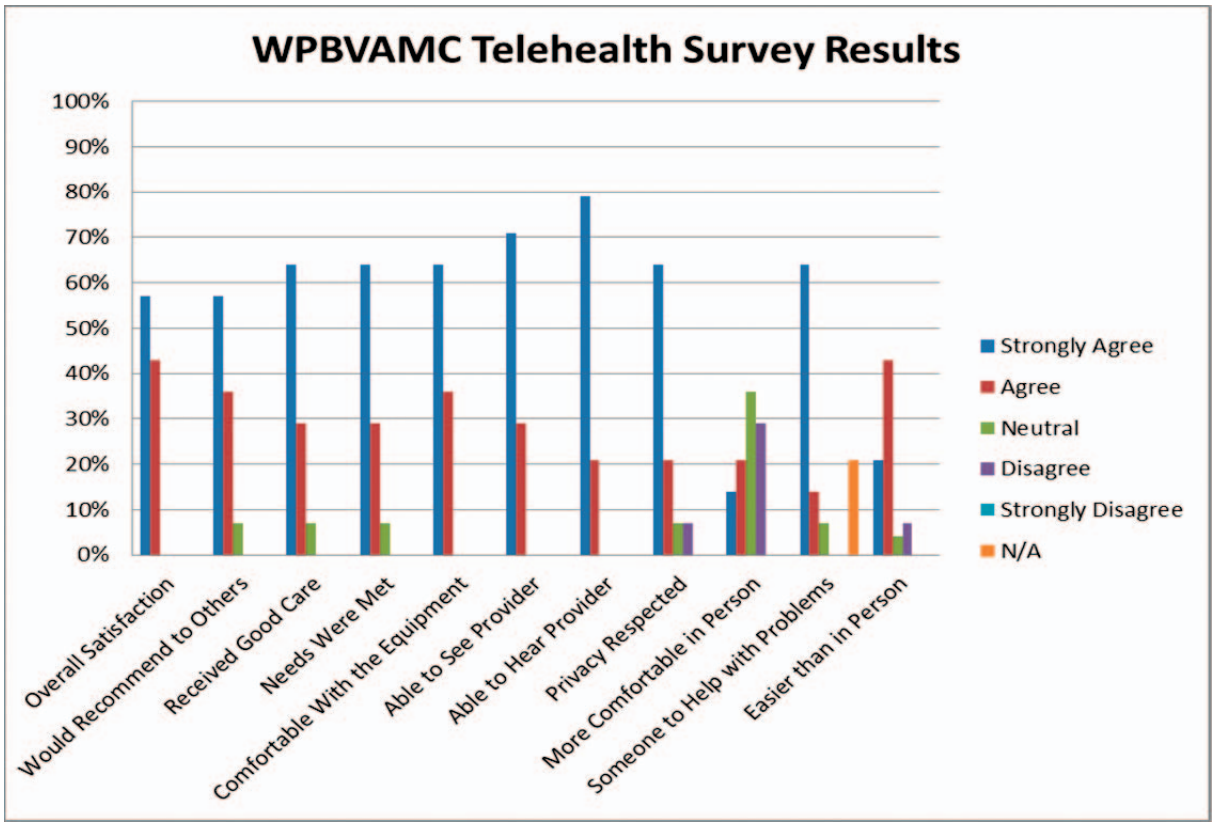

FIGURE: West Palm Beach Veterans Affairs Medical Center (WPBVAMC) telehealth survey results; N/A = not applicable

Conclusion

Implementation of an MHCVT pilot clinic for mental health veterans was a success because the clinic enabled mental health services to be offered to a larger population of patients, including rural veterans. In addition, the clinic was used for SSRI follow-up for veterans not enrolled in the mental health clinics. Veterans were satisfied with the services. Expansion of this clinic in the future will expand more mental health resources to veterans.

Acknowledgments

We thank David Parra, PharmD, FCCP, BCPS AQ-Cardiology and Augustus Hough, PharmD, BCPS AQ-Cardiology for their assistance with initiation of the project. We also thank Penelope Markel and the Office of Rural Health for funding and continued support in the maintenance of this clinic.

References

1. Veterans and Mental Health [Internet]. Washington: VA Office of Public and Intergovernmental Affairs [updated 2014 Mar 26; cited 2015 Apr 14]. Available from: http://www.va.gov/opa/issues/mental_health.asp
2. How common is PTSD? [Internet]. Washington: National Center for PTSD [updated 2014 Jan 30; cited 2015 Mar 23]. Available from: http://www.ptsd.va.gov/public/PTSD-overview/basics/how-common-is-ptsd.asp
3. Real-time clinic based video telehealth [Internet]. Washington: VA Telehealth Services [updated 2014 May 13; cited 2015 Mar 23]. Available from: http://www.telehealth.va.gov/real-time/index.asp
4. Koch E. The VA Maryland Health Care System's telemental health program. Psychol Serv. 2012;9(2):203-5. DOI: 10.1037/a0026144. PubMed PMID: 22662735.
5. Strachan M, Gros DF, Yuen E, Ruggiero KJ, Foa EB, Acierno R. Home-based telehealth to deliver evidence-based psychotherapy in veterans with PTSD. Contemp Clin Trials. 2012;33(2):402-9. DOI: 10.1016/j.cct.2011.11.007. PubMed PMID: 22101225.
6. Barnwell SVS, Juretic MA, Hoerster KD, Van de Plasch R, Felker BL. VA Puget Sound Telemental Health Service to rural veterans: a growing program. Psychol Serv. 2012;9(2):209-11. DOI: 10.1037/a0025999. PubMed PMID: 22662737.
7. Aburizik A, Dindo L, Kaboli P, Charlton M, Dawn K, Turvey C. A pilot randomized controlled trial of a depression and disease management program delivered by phone. J Affect Disord. 2013; 151(2):769-74. DOI: 10.1016/j.jad.2013.06.028. PubMed PMID: 23871127.
8. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Arlington (VA): American Psychiatric Association; 2013.