Published in final edited form as:

J Subst Abuse Treat. 2013 ; 45(5): 475–477. doi:10.1016/j.jsat.2013.06.009.

Group Management of Pharmacotherapy for Alcohol Dependence: Feasibility and Impact on Adoption

Shannon Robinson, MD,

VA San Diego Health Care System

Thomas Bowe, PhD, and

VA Palo Alto Health Care System

Alex HS Harris, PhD

VA Palo Alto Health Care System

Abstract

One of the barriers to initiating patients on medications for alcohol dependence is concern about the work involved in providing ongoing medication management. In this brief report, we describe our initial experiences with a medication management group, initially implemented to provide continued access during a staffing shortage. We describe the group structure and functioning, and provide initial analysis of the groups' impact on access and adoption of pharmacotherapy for alcohol dependence. Results of an interrupted time series analysis in one Veterans Health Administration (VHA) facility provide support for the notion that the group format is not only feasible but can actually increase access to these under-utilized medications (e.g., naltrexone and acamprosate). The number of patients receiving these medications was already increasing in this facility before the switch to group appointments, but this rate of initiation increased almost 3-fold after the onset of the groups.

Introduction

Increasing access to and consideration of evidenced-based pharmacotherapies for alcohol dependence is a major goal of many mental health care organizations and agencies (Department of Veterans Affairs, 2008; Harris, 2012; Oliva, Maisel, Gordon, & Harris, 2011). Shared medical appointments (SMAs) are a relatively new care delivery strategy involving groups of patients meeting over time for the treatment of a chronic condition, usually with a clinician trained in patient education and facilitating group interactions and a practitioner with prescribing privileges. Depending on the setting and size of the group, SMAs typically last for 1-2 hours and involve dialogue among patients about therapeutic

Corresponding author affiliation and address: Alex HS Harris, PhD, Center for Health Care Evaluation, VA Palo Alto Health Care System, 795 Willow Road (152 MPD), Menlo Park, CA 94041, Phone: 650-493-5000 ext. 23423, Fax: 650-617-2736, Alexander.Harris2@va.gov.

None of the authors have any conflict of interest related to this work.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

goals, progress, and strategies, as well as interactive education, and medication management (Edelman, et al., 2012). SMAs are becoming popular as a way of delivering efficient and high quality care to an ever growing number of patients with chronic medical conditions, especially diabetes (Edelman, et al., 2012).

Although group-formatted psychotherapy, psycho-education, and mutual support have long histories in psychiatry and addiction treatment, using a group format for addiction medication management is, as far as we can tell, novel and unstudied. In this brief report, we describe our initial experiences with group management of pharmacotherapy for alcohol dependence, initially motivated by a staffing shortage but continued despite the staffing shortage being rectified. We describe the group structure and functioning, and provide initial analysis of the groups' impact on access and adoption of pharmacotherapy for alcohol dependence.

Methods

Group Medication Management Visits

The groups emerged as response to a temporary shortage of prescribing clinicians in the Alcohol and Drug Treatment Program (ADTP) at the Veteran Administration San Diego Health Care System. The ADTP provides primarily group-formatted psychosocial addiction treatment to approximately 2,100 veterans per year, about 1,600 of which have alcohol dependence; 14% of these veterans filled at least one prescription for an alcohol dependence medication in fiscal year 2011. In ADTP, individual treatment encounters have traditionally been targeted to patients who are significantly demented and disruptive to group processes, those who cannot attend groups due to geographical or other reasons, as well as medication management visits.

The new addiction medication management groups are composed of patients with alcohol dependence who are being treated with or are considering treatment with naltrexone, acamprosate or more rarely a combination of these two agents or other agents. Very occasionally, patients without alcohol dependence are admitted to the group for medication management of opioid dependence with naltrexone. Although disulfiram is discussed at these groups it is rarely prescribed based on patient and provider preference. For patients initiating pharmacotherapy for alcohol dependence, we encouraged medication use over the first year of sobriety. Veterans are referred to the groups by staff from the Alcohol and Drug Treatment Program (e.g., psychiatrists, addiction therapists, certified nurse specialist), during any phase of treatment (e.g., detoxification, evaluation, active treatment). Participants are encouraged to attend the pharmacotherapy group monthly early in recovery and then, as they gained skills associated with sobriety, less frequently. It is not uncommon for veterans to request to continue to attend monthly because they feel benefit from the feedback they receive, or in order to support other group members. In addition attending the group pharmacotherapy visits, all participants are expected to attend a weekly process group in the ADTP. However, patients are not denied medication if they do not attend the process groups or outside support groups focused on sobriety. The process group, in contrast to a psychoeducational group, focuses on expressing thoughts, feelings, and experiences, giving

and receiving support, and the experience of being in the group itself as the therapeutic agent.

The medication management groups were initially run by two providers, an addiction psychiatrist in collaboration with either an Addiction Therapist or a Certified Nurse Specialist, although the exact staffing composition varies on occasion. The groups last for one hour and are offered on Wed at 8:30AM and Fridays at 12:30PM. Patients who are unable to attend group meeting due work conflicts or other scheduling issues are seen individually. Group enrollment is ongoing. Participants can switch groups at their preference. The number of participants in each group was initially determined by the size of the group room and eventually capped at 8 participants. This number of patients, including a maximum of three new patients, is the most we can reasonably manage (e.g., to make medication changes, order refills and labs, make return appointments, and consent up to three new group members for medication) in the time allotted.

The groups always begin with a review of naltrexone and acamprosate for any new members and discussion of any current side effects or benefits from ongoing group members. Depending on the size and composition of the group, this process can take between 10 and 60 minutes. If time allows, the group then focuses on barriers to sobriety in a typical process group format. At the end, continuations or adjustments of medications for each veteran are addressed within the group process. For example, dose may be increased, change to a new drug may be initiated, or addition of a second drug or switch to injectable over oral naltrexone may be made if non-compliance is a concern. Noncompliance is typically determined by clinical staff checking refills and through the patients reporting they are not consistently taking medication. Lab tests are ordered when applicable and patients are given directions on when to have labs completed and when to return to group.

Evaluating the Impact of Group Management of Pharmacotherapy for Alcohol Dependence

The relevant population for this study includes alcohol dependent patients who had contact with the ADTP during the observation period. Among these patients, we estimated the effects of instituting group medication management visits on the proportion who filled a prescription for naltrexone or acamprosate, or received an injection in the case of extended-release naltrexone, each month. To make this evaluation, we utilized an interrupted time series (ITS) design, analyzed with segmented regression. ITS is an increasingly common design strategy that is very useful when the number of intervention sites is small, but the site or sites can be observed for many time periods before and after the onset of the intervention. (Matowe, Leister, Crivera, & Korth-Bradley, 2003; Wagner, Soumerai, Zhang, & Ross-Degnan, 2002). ITS allows an estimation of treatment effects on both the proportion of patients receiving medication and the monthly rate of change. Our primary analysis involved 16 months prior to the switch to group visits at one VHA facility and 8 months after the change in format. For each month, we calculated the proportion of alcohol dependent patients filling prescriptions or receiving injections for naltrexone or filling prescriptions for acamprosate. By this strategy, the facility acts as its own control in evaluating changes in the level or rate of change in pharmacotherapy receipt. Although the one-site analysis is the most direct and powerful test of the intervention effect in this one facility, a limitation of a

single-facility ITS design is that it fails to account for secular trends occurring in all facilities that may be misinterpreted as treatment effects. Therefore, we conducted sensitivity analyses using a similar but randomly selected control facility that did not institute group medication management visits.

Results

The results of the segmented regression are presented in Table 1 and Figure 1. As can be seen in the regression coefficients in Table 1, in the first month of the 16 month pre-group period, 1.62 percent patients ($n = 25$) filled prescriptions for medications for alcohol dependence (represented by the intercept). The p-value for this term (and others) indicates that the estimate was statistically different than zero. In the pre-group period, there was a statistically significant increase of 0.08 percent per month (1.17 patients) through month 16 ($p < .001$). During month 17 in which medication management groups began, an estimated 1.42 percent of patients (1.62%-0.20%; or 21.9 patients) received medications for alcohol dependence, which does not represent a significant discontinuity. Anecdotally, this drop in patients in Month 17 may have occurred due the challenges of switching patients to a new format and schedule. However, the rate of increase in the percent of patient treated from Month 17 to Month 24 increased to 0.21% per month (or 3.19 additional patients per month; $p = .044$).

In order to check that the intervention-related change in the rate of increase in the proportion of patients treated could not be explained by secular trends, we randomly selected one facility from among 30 with very similar baseline proportion of patients with alcohol dependence receiving medications and repeated the analysis above with the addition of an interaction term for facility (details available from authors on request). Although the control facility had very similar size to the target population (1449 vs. 1545 in San Diego), the same annual proportion of SUD specialty care patients with alcohol dependence receiving the medications (i.e., 14%), and a similar and statistically significant month-over-month rate of increase in the pre-intervention proportion of patients receiving medication (i.e. 0.16% per month vs. 0.20% in San Diego), the increase in rates of change after Month 17 was significantly greater in the primary vs. the control facility ($p = 0.008$).

Finally, we wanted to better understand if the increase in monthly patients was driven more by the initiation of new patients or longer persistence by established patients. For these analyses, new patients were defined as not previously filling a prescription during the study period. Excluding the first month from the analysis because all patients were new by this definition, new patients in Month 2 were patients who did not fill prescriptions in Month 1. We then repeated the primary analyses on both the raw number of new patients per month (excluding Month 1) and the ratio of new to returning patients revealed that the increase in the rate of accrual of patients can mostly be explained by the increase in new patients, meaning that the intervention appears to increase access and initiation rather than persistence.

Discussion

After initial apprehension toward group medication management visits, staff found the groups to be a highly efficient and effective way to deliver care, especially for this population known to frequently miss individual appointments. Although we did not formally assess clinician or patient satisfaction with group medication management visits, anecdotally, the addiction therapist enjoyed being directly involved with this more medicalized approach to addiction treatment and was instrumental to pharmacotherapy gaining acceptance among patients and staff in the predominantly 12-step based program. Patients in the group have remarked that they appreciate hearing from other patients already on the medication regarding effectiveness and side effects. Patients also appear to appreciate the ease at which you could access group appointments (0-13 day wait) compared to individual appointments (up to 8 week wait). Indeed, our exploratory analyses suggested that the increase in monthly patients was driven more by the initiation of new patients rather than longer persistence by established patients. Improving access and initiation is a notable and important outcome for these groups. The fact that the groups did not seem to impact persistence is hard to interpret without knowing more about lengths of persistence prior to the groups which is beyond the scope of this project.

Our analyses are not without limitations. In particular, we did not measure patient-level medication management group involvement directly, we used filling prescriptions as a proxy for actually taking the medications, and our method for distinguishing “new” patients was crude in that it did not examine the pre-observation period. With these caveats in mind, these results provide some initial support for the notion that the group format is not only feasible but can actually increase access to these under-utilized medications (Harris, et al., 2012). The number of patients receiving these medications was already increasing in this facility before the switch to group appointments, but this rate of accrual increased almost 3-fold after the onset of the groups. We are currently experimenting with different staff mixes for leading the groups, including nurse practitioners and licensed vocational nurses, although the impact of these modifications are currently unknown.

Conclusions

One of the barriers to initiating patients on medications for alcohol dependence is concern about the work involved in providing ongoing medication management. Group medication management visits appear to be a feasible format to handle this workload in order to increase access to and initiation of these evidence-based treatments. Although this study examined the effects of a naturally occurring implementation, future studies should examine in a more planned and rigorous manner the effects of this novel group format on access, medication persistence, patient and provider satisfaction, and clinical outcomes.

Acknowledgments

This research was supported by the VA Substance Use Disorder Quality Enhancement Research Initiative (QUERI) # LIP-1305. The views expressed herein are not necessarily those of the Department of Veterans Affairs.

References

- Department of Veterans Affairs, V. H. A.. VHA Handbook 1160.01: Uniform Mental health services in VA Medical Centers and Clinics. Washington, DC: Author; 2008.
- Edelman, D.; McDuffie, JR.; Oddone, E.; Gierisch, JM.; Nagi, A.; Williams, JW, Jr. Veterans Health Administration; Washington, DC: 2012. Shared Medical Appointments for Chronic Medical Conditions: Systematic Review. Veterans Administration Evidence-based Synthesis Program, Project #09-010; 2012. http://www.hsrd.research.va.gov/publications/esp/shared-med-appt.cfm#_UeEY2dj0Yrw)
- Harris AHS. Too few patients medicated for alcohol dependence. *Health Affairs*. 2012; 31(1):249.
- Harris AHS, Oliva E, Bowe T, Humphreys KN, Kivlahan DR, Trafton JA. Pharmacotherapy of alcohol use disorders by the Veterans Health Administration: patterns of receipt and persistence. *Psychiatric Services*. 2012; 63(7):679–685. [PubMed: 22549276]
- Matowe LK, Leister CA, Crivera C, Korth-Bradley JM. Interrupted time series analysis in clinical research. *Annals of Pharmacotherapy*. 2003; 37(7-8):1110–1116. [PubMed: 12841825]
- Oliva EM, Maisel NC, Gordon AJ, Harris AH. Barriers to use of pharmacotherapy for addiction disorders and how to overcome them. *Current Psychiatry Reports*. 2011; 13(5):374–381. [PubMed: 21773951]
- Wagner AK, Soumerai SB, Zhang F, Ross-Degnan D. Segmented regression analysis of interrupted time series studies in medication use research. *Journal of Clinical Pharmacy and Therapeutics*. 2002; 27(4):299. [PubMed: 12174032]

Figure 1.
Effect of Group Medication Management Visits on Percent of Alcohol Dependent Patients
in Addiction Specialty Treatment Receiving the Medications

Table 1

Effects of Group Medication Management on Utilization of Pharmacotherapy for Alcohol Dependence

	Estimate	Std. Error	t value	p-value
% Patients Receiving Meds in Month 1	1.62	0.19	8.32	< 0.001
Monthly % Increase in the Pre-group period	0.08	0.02	3.75	0.001
Change in % Patients at Group Onset	-0.20	0.34	-0.61	0.548
Change in Monthly Increase after Group Onset	0.13	0.06	2.14	0.044

Residual standard error: 0.3725 on 20 degrees of freedom

Multiple R-squared: 0.8199, Adjusted R-squared: 0.7928