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Barriers to and Facilitators of Pharmacotherapy for Alcohol Use Disorder in VA Residential Treatment Programs

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Abstract

Among US military veterans, alcohol use disorder (AUD) is prevalent and in severe cases patients need intensive AUD treatment beyond outpatient care. The Department of Veterans Affairs (VA) delivers intensive, highly structured addiction and psychosocial treatment through residential programs. Despite the evidence supporting pharmacotherapy among the effective treatments for AUD, receipt of these medications (e.g., naltrexone, acamprosate) among patients in residential treatment programs varies widely. In order to better understand this variation, the current study examined barriers and facilitators to use of pharmacotherapy for AUD among patients in VA residential treatment programs. Semi-structured qualitative interviews with residential program management and staff were conducted and the Consolidated Framework for Implementation Research was used to guide coding and analysis of interview transcripts. Barriers to use of pharmacotherapy for AUD included cultural norms or philosophy against prescribing, lack of access to willing prescribers, lack of interest from leadership, and perceived lack of patient interest or need. Facilitators included cultural norms of openness or active promotion of pharmacotherapy; education for patients, program staff and prescribers; having prescribers on staff, and care

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coordination within residential treatment and with other clinic settings in and outside VA. Developing and testing improvement strategies to increase care coordination and consistent support from leadership may also yield increases in the use of pharmacotherapy for AUD among residential patients.

Keywords

Alcohol-related Disorders Alcohol dependence; Pharmacotherapy; Veterans; Residential Treatment

1. Introduction

Alcohol use disorder (AUD) is a common condition among veterans who receive health care at the Department of Veterans Affairs (VA). In fiscal year 2009, there were 331,623 veterans diagnosed with alcohol use disorder (Harris et al., 2012), representing 6% of those served in VA facilities. AUD is even more prevalent among subgroups of VA patients: 57% of justice-involved veterans who received VA outreach services in jails or courts (Finlay, Smelson, et al., 2016), 33% of those who received VA outreach in prison (Finlay et al., 2015), and 49% of veterans who received VA homeless services had AUD (Tsai, Kaspro, & Rosenheck, 2014).

Veterans who have extensive mental health and substance use disorder treatment needs along with psychosocial problems, such as housing instability or unemployment, often need intensive supervision and treatment beyond outpatient care. The VA meets these veterans' AUD treatment needs through two types of residential treatment programs: Substance Use Disorder Residential Rehabilitation Treatment Programs and Mental Health Residential Rehabilitation Treatment Programs with a substance use disorder track.

Pharmacotherapy for AUD – naltrexone, acamprosate, and disulfiram – is an effective but generally underutilized treatment option. Meta-analyses indicate that these medications are effective at reducing heavy drinking days and increasing days of abstinence (Arbaizar, Diersen-Sotos, Gomez-Acebo, & Llorca, 2010; Jonas et al., 2014; Maisel, Blodgett, Wilbourne, Humphreys, & Finney, 2013), and are mandated to be available and considered for any VA patient for whom they are clinically indicated (Department of Veterans Affairs, 2008). Despite the effectiveness of these medications and the mandate that these treatments be made available, less than 5% of VA patients with AUD received these medications in fiscal year 2009, with a slightly higher rate (8%) observed among patients who had contact with a specialty addiction clinic (Harris et al., 2012). More recent research among patients with AUD and a co-occurring mental health disorder (which was 78% of patients with AUD) indicated pharmacotherapy for AUD rates of 7–11% in fiscal year 2012 (Rubinsky, Chen, Batki, Williams, & Harris, 2015).

A review of previous studies of utilization of pharmacotherapy for addiction treatment in contexts other than residential treatment programs identified system-, provider-, and patient-level barriers to accessing pharmacotherapy for AUD (Oliva, Maisel, Gordon, & Harris, 2011). System-level barriers included government and health insurance policies against

pharmacotherapy, program characteristics such as treatment philosophy or providing medications in separate clinics, and logistical issues such as a lack of access to prescribing physicians. Provider-level barriers included lack of training or knowledge about addiction medications, and provider perceptions about the effectiveness of pharmacotherapy. Research on patient-level barriers is lacking.

In a study of VA specialty addiction clinics, a survey of VA providers from facilities with low and high rates of prescribing pharmacotherapy for AUD identified similar barriers including perceptions of low patient demand, pharmacy or formulary restrictions, and lack of skills or knowledge among providers (Harris et al., 2013). Strategies thought to be potentially helpful included more education to patients and providers, and increased involvement of physicians in alcohol treatment. Although the study sampled across specialty addiction settings, including residential settings, most informants worked with patients treated in outpatient settings. The barriers and facilitators identified in previous studies largely represent experiences in outpatient settings. The current study extends this work by examining barriers and facilitators to pharmacotherapy for AUD in residential treatment settings. The programs serve a unique population who may have different barriers to treatment access and may require other facilitators to engage in pharmacotherapy.

1.1 Conceptual Framework

The current study used the Consolidated Framework for Implementation Research (CFIR; Damschroder et al., 2009) to guide analysis and interpretation of results. CFIR is a typology of conceptually or empirically supported constructs derived from implementation theories that have been associated with effective implementation of interventions. In the current study, we focus on the evidence-based intervention of pharmacotherapy for AUD. The framework is organized into 5 domains and 39 constructs. We used CFIR to organize our results because it is a flexible framework with key constructs that provide a guide for analysis, interpretation, and future quality improvement efforts.

1.2 Current Study

Although there has been some research on barriers and facilitators to pharmacotherapy for AUD, there is a dearth of literature examining perceived barriers to and facilitators of receipt of these medications in residential treatment settings where need is arguably greatest. In fiscal year 2012, there were 389,240 VA patients diagnosed with AUD. Roughly one-third of these patients received treatment in substance use disorder specialty clinics (outpatient and residential) with 15,056 high-need, high-severity patients with AUD are treated in residential programs (representing 5% of VA patients diagnosed with AUD). The vast majority of patients in residential treatment also receive outpatient treatment. Our study aims to validate barriers and facilitators previously identified in outpatient settings in a new clinical setting (residential treatment) as well as extend theory and practice by identifying unique barriers and facilitators to pharmacotherapy for AUD in residential settings. By examining the perspectives of program management and staff from high and low performing programs, we hope to determine best practices that can be spread to other programs to help address their barriers to use of pharmacotherapy for AUD.

2. Material and Methods

2.1 Data Sources and Samples

2.1.1 Quantitative—All Substance Use Disorder Residential Rehabilitation Treatment Programs, Residential Rehabilitation Treatment Programs with a substance use disorder track operating within the VA in fiscal 2012, and all patients with an AUD diagnoses in these residential programs were included in the current study. These programs were identified using VA data drawn from the Northeast Program Evaluation Center in Mental Health Operations. Patient data was drawn from the VA's National Patient Care Database. Data was also used from the 2012 Drug and Alcohol Programs Survey conducted by the VA's Program Evaluation and Resource Center and the Mental Health Residential Rehabilitation Treatment Programs Annual Survey for 2012 conducted by the Northeast Program Evaluation Center. These data were pre-existing and collected by VA staff as part of routine clinical care and quality improvement efforts.

2.1.2 Qualitative—Data were derived from semi-structured interviews with staff from VA residential substance use disorder treatment programs. Recruitment was designed so that directors, program managers, and/or front-line staff from all 97 programs were contacted for participation.

2.2 Procedures

2.2.1 Quantitative—To create performance metric profiles for each program, patient data was linked to program data. Program profiles contained information such as patient demographics and diagnoses, number of beds, occupancy rates, waiting time, and readmissions. For the current study, the number of patients in each residential program diagnosed with AUD was counted. Next, the rate of receipt of pharmacotherapy for AUD was calculated as the proportion of residential substance use disorder treatment program patients with a corresponding AUD diagnosis that had a documented prescription for naltrexone, acamprosate, topiramate, or disulfiram during the residential stay or within 7 days following discharge, calculated separately for each program. Using the distribution rates of receipt of pharmacotherapy for AUD from the profiles, the team then classified each program as a low, average, or high performer compared to the national average.

2.2.2 Qualitative—Points-of-contact, typically program managers or directors, from the 97 residential programs specializing in addiction treatment were identified from VA databases. Points-of-contact were sent an email explaining the study and inviting their participation. A follow-up email and telephone call were made to staff who did not respond to the initial email. Participants who agreed were scheduled for a telephone interview lasting approximately one hour. At the start of the interview, participants were consented and then an open-ended semi-structured telephone interview was conducted. For those who participated in an interview, near the end of the interview they were asked if there was another staff member who may wish to participate in the study. Suggested staff members were then contacted directly to solicit participation in the study. The number of informants per program ranged from 1–4 participants.

At the beginning of each interview, a program profile report with data unique to the participant's program alongside the national average for their program type (either Substance Use Disorder Residential Rehabilitation Treatment Program or Mental Health Residential Rehabilitation Treatment Program with a substance use disorder track) was shared and reviewed using computer screen-sharing (Microsoft Lync). For the current study, we examined each program's rate of receipt of pharmacotherapy for AUD and interview portions that focused on pharmacotherapy for AUD.

For the interviews, participants from all programs were asked the following question: "What is your program's overall approach or treatment philosophy regarding addiction pharmacotherapy?". Participants were then read the following prompt: "In the table, you will see data for the proportion of patients in your program that used pharmacotherapy for **Alcohol Use Disorder** in FY12, compared to the national average. It appears that X% of your patients used pharmacotherapy for AUD."

- [Average Performers] SKIP TO NEXT TOPIC
- [High Performers] "This is high compared to the national average. Given that the overall use of addiction pharmacotherapy in the VHA is low, is there advice you can provide on how to achieve higher rates of use?"
- [Low Performers] "This is low compared to the national average. What do you think are the potential barriers to use of AUD pharmacotherapy in your program?"

Participants from average performing facilities were not asked about barriers or facilitators. All interviews were audiotaped and transcribed, except in three instances where the participants declined to be audiotaped. Notes were recorded into a Microsoft Word document in these instances. Compensation was not offered to participants because VA policy prohibits physicians from receiving compensation for participation in VA-funded research projects. In the interest of parity no VA staff were offered compensation.

2.3 Analysis

2.3.1 Quantitative—For the current study, quantitative analyses were limited to calculating the number of patients in each program that were diagnosed with AUD and the proportion who received pharmacotherapy for AUD. We also calculated the average and range in rate of receipt across programs.

2.3.2 Qualitative—Interview transcripts were examined using thematic analysis (Braun & Clarke, 2006; Vaismoradi, Turunen, & Bondas, 2013) to identify barriers and facilitators to pharmacotherapy for AUD using participants' responses to the philosophy and barrier or facilitator questions. First, two research team members (LSE, JJW) independently coded each transcript to identify barriers and facilitators. Next, the codes were reviewed with a third research team member (AKF) to generate themes using an inductive, iterative approach. Disagreements were resolved through discussion and when the three researchers could not agree on a theme, the senior researcher (AHSH) was consulted for input. After themes were generated, reviewed, revised, and named by the research team, the three

research members in consultation with the senior researcher matched themes to domains and constructs from CFIR (Damschroder et al., 2009). An inductive approach was used first to allow the possibility that a theme representing a new construct could be generated from the interviews; however, all themes were matched to existing CFIR constructs. All qualitative analyses were conducted using ATLAS.ti Version 7.5 (ATLAS.ti, 1999).

3. Results

3.1 Rate of Receipt of Pharmacotherapy

In FY 2012, there were 15,056 patients with AUD who were admitted to residential substance use disorder treatment programs, with 10,366 patients admitted to Substance Use Disorder Residential Rehabilitation Treatment Programs and 4,690 patients admitted to Mental Health Residential Rehabilitation Treatment Programs with a substance use disorder track. The number of patients per program ranged from 12 to 689. The average rate of receipt of pharmacotherapy for AUD was 12% and ranged from 0% to 50% across programs. The rate of receipt was 12.5% among patients in Substance Use Disorder Residential Rehabilitation Treatment Programs and 10.4% among patients in Mental Health Residential Rehabilitation Treatment Programs with a substance use disorder track.

3.2 Summary of Qualitative Interviews

Out of a total of 199 people contacted, 63 staff members from 44 of the 97 VA residential treatment programs participated in the study. Interviews were conducted with 30 staff members from 19 low performing programs, 22 staff members from 17 high performing programs, and 11 staff members from 8 average performing programs. Of the participants, 57% were women and 43% were men. Training backgrounds included 40% PhDs, 40% Masters of Social Work or Licensed Social Work degrees, and 21% had other types of degrees including MD, RN, BA, and other Master's level degrees. Staff from a variety of roles participated in interviews, including Program Managers, Medical Directors, Clinical Psychologists, Chiefs of Substance Use Disorder Services, and Addiction Therapists. During analysis of the qualitative interviews, 14 themes were identified as 10 barriers and 11 facilitators to pharmacotherapy for AUD. The themes were mapped to 11 constructs within 4 domains of the CFIR (Figure 1).

3.3. Inner Setting

Nine themes represented constructs from the Inner Setting domain, which is the cultural or structural context in which the implementation occurs (Damschroder et al., 2009). The Inner Setting of the current study is the residential treatment program setting. General cultural norms/philosophy represented the construct of Culture, which are the values or basic assumptions of an organization. Negative cultural norms or a philosophy against prescribing were cited as a barrier to pharmacotherapy: *Let's not get anybody hooked on anything else is a prevailing philosophy*. Some staff mentioned a cultural norm of focusing on psychosocial treatment or 12-step programs instead of medications, whereas other staff mentioned strong philosophical orientations against pharmacotherapy. Others mentioned that pharmacotherapy was generally not used by the program except in special circumstances, such as a patient who was drinking hand sanitizer for the alcohol.

General cultural norms that were mentioned as facilitators included a passive openness or interest in medications for AUD. *Generally, I think there's an openness to introducing addiction medications to any of our Veterans.* Other program staff actively encouraged and promoted pharmacotherapy - talking to and educating all veterans about these medications, and having different providers (e.g., physician, nurse) speak with the veterans about the benefits of these medications so that veterans encountered multiple offers of pharmacotherapy. *When a Veteran comes into the residence we proactively schedule a series of appointments with them...one of the things is they're seeing multiple providers who can offer pharmacotherapy and talk about pharmacotherapy in different ways...our target is twice during their stay—they all meet with a nurse practitioner at least twice during their stay, usually more often. They all meet with a psychiatrist...they're getting multiple offers of medication.*

The second theme was shared receptivity of the prescriber to the intervention, which represents the Implementation Climate. Some staff mentioned prescribers' negative attitudes towards pharmacotherapy as a barrier. *My nurse practitioner...was very much against anything like that. He was very old school.* Passive openness or interest to pharmacotherapy was mentioned as a facilitator: *I think that's gotten a lot better now with some of the folks in terms of being more receptive and being more open to the idea of pharmacology in assisting the Veterans to get over the rough spots.* Other staff discussed the active encouragement and promotion that happened in their programs: *We absolutely embrace it. My psychiatrist talks with everybody who would be appropriate for the use of medication-assisted therapies.*

Two themes – prescriber education and program staff education – were described as facilitators and represented the construct of Learning Climate (a subconstruct of Implementation Climate). *We did a lot of education activities around that for the psychiatrist at [SITE]...all of the psychiatrists were educated several times about...the things available to prescribe for someone who's addicted that can enhance or help in their recovery...a lot of talk about it and training and literature, articles, passed around through the e-mail about it.* Education included reading and sharing literature, and seminars to discuss pharmacotherapy and address related myths and beliefs. *One of the things is staff education. We have seminars that talk about Suboxone, naltrexone, disulfiram and methadone...we had a brown bag where exchanged and talked about myths and beliefs...getting staff together that have strong opinions about medication-assisted treatment and targeting those medications through education learning will open a world of communication and most importantly a collaboration of care.*

Access to prescribers/specialists was a barrier and a facilitator and represents the construct Readiness for Implementation-Available Resources. Not having a psychiatrist who specialized in addiction treatment to prescribe pharmacotherapy for AUD or needing more willing prescribers to meet the needs of patients were cited as barriers to treatment: *The other barrier is that I don't have a prescribing provider here who is trained in that, who is willing to do that.* Having prescribers, especially those with specialized training or experience in addiction pharmacotherapy, was mentioned as a facilitator: *For residential treatment everybody does see our psychiatrist here. He is a board-certified addictionologist and prescribes some of the medications.*

Leadership support or lack thereof was noted as both a barrier and facilitator, and represents the construct Readiness for Implementation-Leadership Engagement. Participants mentioned inconsistent support or lack of support from leaders for pharmacotherapy as a barrier: *No one that I know does Antabuse...we'd have to get the medical providers on board, and we'd have to get some support from, say, the chief of staff and some interest going to make that happen. But it's interesting to realize we're so much lower. I mean, that kind of statistic gets leadership's attention.* Programs located at facilities where medical directors and other leaders promote the use of pharmacotherapy for AUD recognized this support as a facilitator: *The Chief of Mental Health was always talking about it and pumping it up and trying to bring awareness about. So I think that really helped.*

Three themes mapped to the construct of Networks and Communication. First, initiation of medication by referring program was described as a facilitator. *People will come into the program already on the pharmacotherapy. So it probably less reflects our treatment philosophy and more reflects the treatment philosophy of either the programs that refer to us or the psychiatric staff that they're working with.* Second, care coordination within the residential treatment program was mentioned as both a barrier – *Our psychiatrists are not—they're not really part of our team.* – and a facilitator – *That addiction doctor and the addiction therapist meet weekly to discuss other outpatient clients, and that's one of the main focuses of those meetings. So I think treatment planning, not only for residential, but also for outpatient, to discuss those types of things is important.* Weekly meetings to discuss patients and their treatment needs and communicating and engaging veterans in discussions about their treatment were cited as helpful strategies. Third, care coordination with providers outside the residential program was both a barrier: *Our doctor handles any crises and things that come up during the time, but she wouldn't necessarily try to overstep the boundaries of their normal prescribing doctor.;* and a facilitator to treatment: *There's a big push in our ATC [Addiction Treatment Clinic] outpatient program to utilize pharmacotherapy, so when they do get in here, it's not like we're having to convince or go through that process with them, they already have had that conversation.*

Outer Setting—The Outer Setting, which is the social, political, and economic context in which an organization resides (Damschroder et al., 2009), includes the larger VA healthcare setting as well as the broader social and political milieu of addiction treatment in the US. Perceived patient interest or need (or lack thereof) represented the construct of Patient Needs & Resources. It was described as a barrier to treatment and: *Some people think that it might be just, especially for the alcohol, is that people who go to AA, that some AA groups are more accepting of those things and some aren't. Some are like, "Well, you shouldn't do anything at all"... We think it might just be a little bit of reservation on the Veteran as to they really want to be totally abstinent or not, but we can't say that we have really good data either way.* Perceived patient interest of need was also mentioned as a facilitator to treatment: *To use it when a Veteran is interested and feels like they need it...if any one of us on the treatment team are hearing from the Veteran that they're dealing with cravings that are very difficult, difficult to manage using mindfulness, other options, then we will suggest that they have a conversation with a nurse practitioner and review the pros and cons. But it's*

basically observation of the symptoms presented and then openness, receptiveness of the Veteran to engage in that conversation and make an informed choice.

Patient education was described as a facilitator and represents the construct of Patient Needs & Resources. Education involved providers discussing and reviewing medications with veterans, meeting with multiple providers so pharmacotherapy is described in different ways, and offering a structured class for veterans with curriculum on addiction and medications. *We're educating patients. Every patient who comes in who it's relevant for about naltrexone and other pharmacological interventions that might be helpful in controlling cravings.*

Policy restrictions was a barrier and represents the construct of External Policies and Incentives. However, details on these policies were not expressed so it is unclear what policies interviewees were referring to. *I just think that that's just been a hospital policy that is now changing to reflect the benefits, the needs.*

Characteristics of Individuals—The Characteristics of Individuals domain represents those who deliver the intervention or have the ability to influence the uptake or implementation of the intervention (Damschroder et al., 2009). In the current study, program managers and staff, prescribers, pharmacy staff, and VA leaders have the ability to influence use of pharmacotherapy for AUD. A lack of knowledge about pharmacotherapy, which represents the construct Knowledge and Belief of the Intervention was cited as a barrier to pharmacotherapy: *I think our addiction therapists and social workers are less knowledgeable about medications.*

Intervention Characteristics—Intervention Characteristics are the key aspects of the intervention that influence successful implementation (Damschroder et al., 2009). Only one aspect of the intervention, Cost, was mentioned by participants: *It's an issue with the pharmacy. They have been very reluctant to approve some of these more expensive medications for the vets.*

4. Discussion

This study examined barriers and facilitators to pharmacotherapy for AUD as perceived by VA residential substance use disorder program management and staff. We identified 14 themes which mapped to 10 CFIR constructs in four CFIR domains: intervention characteristics, outer setting, inner setting, and characteristics of individuals. A lack of support for or interest in pharmacotherapy was mentioned as a barrier at each level: system/organizational, program staff, and patient. These findings are consistent with previous research examining barriers to pharmacotherapy for addiction treatment across all settings (Oliva et al., 2011). Some interview participants mentioned that policies were changing and new providers were being hired who had training in addiction treatment. Participants from high performing programs described facilitators of having staff who supported pharmacotherapy, prescribers with addiction training who were open to providing these medications, and support from leadership.

Care coordination was mentioned as both a barrier and facilitator to receipt of pharmacotherapy. Efforts towards care coordination such as integrating mental health services in addiction treatment settings and establishing relationship to improve referrals have been shown to be effective in community treatment programs (Guerrero et al., 2016). However, the VA has not effectively integrated substance abuse treatment into primary care or mental health care (Tracy, Trafton, Weingardt, Aton, & Humphreys, 2007). For example, clinicians in a study of primary care-mental health care integrated clinics thought that medications for substance use disorders needed to be given in conjunction with group therapy or case management or that special training in addiction treatment was needed (Zubkoff, Shiner, & Watts, 2016). Unlike medications for opioid use disorder, no special waiver is needed to prescribe medications for alcohol use disorder, nor is prescribing more difficult than other commonly prescribed medications such as anti-depressants. Thus, these results suggest more efforts are needed to improve care coordination between staff in other clinical settings and specialty addiction programs. Staff exchanges, with a substance abuse provider working one or two days a week in a mental health clinic and a mental health provider working in the addiction clinic has been mentioned as an effective way to develop collaborative partnerships (Guerrero et al., 2016). Alternately, having access to a prescriber in the residential treatment setting was a facilitator to treatment, suggesting that focusing on the delivery of treatment within this clinic setting may be more impactful in increasing pharmacotherapy for AUD.

Education was mentioned as an important facilitator of pharmacotherapy for AUD. Lack of knowledge about pharmacotherapy and a negative philosophy towards pharmacotherapy among program staff was mentioned as a barrier. These findings are consistent with a survey of VA addictions treatment providers (outpatient and inpatient) about barriers and facilitators to use of pharmacotherapy (Harris et al., 2013). Another barrier to treatment was clinicians' perceptions that patients were not interested in or needed treatment. A study of providers of PTSD treatment mentioned a similar barrier – lack of patient readiness for treatment (Zubkoff, Carpenter-Song, Shiner, Ronconi, & Watts, 2016). These results suggest that education for the patient to increase their readiness for treatment and clinician education to help ready patients or more accurately assess patient readiness may be effective at improving receipt of pharmacotherapy for AUD. In 2013, the VA piloted an academic detailing program in 37 hospitals and clinics to improve knowledge and attitudes among program staff and increase use of medications for AUD. Academic detailing is a multi-faceted educational outreach program that in which prescribers are presented with information about the targeted medications in a series of face-to-face visits with trained health care professionals. A recent evaluation of this multi-faceted program within VA found a 3.3% positive increase in absolute rates (5.0% to 8.3%) of prescribing of pharmacotherapy for AUD across settings (Harris et al., 2016).

System-level barriers or facilitators identified may be less addressable at the local level. For example, one program mentioned cost of medications as a barrier to their use. Currently, all pharmacotherapy for AUD medications are included on the VA formulary, but the metrics for this study were calculated using fiscal year 2012 data when acamprosate and extended-release naltrexone were not included on the formulary. Cost of these medications at that time may have prevented their prescribing by providers. However, it is unclear if this is related to

an expensive medication not being on the formulary in 2012 or whether pharmacists do not want to approve expensive medications on the formulary when a less expensive option is available. Recent research indicated that even after medications were added to the formulary, fill rates were less than 1% among all VA patients diagnosed with AUD (Rubinsky et al., 2015), suggesting that cost may be due to pharmacists reluctance to approve more expensive medications.

4.1 Limitations

There were limitations to this study. Staff from less than half of VA residential substance use disorder treatment programs participated in the study. In addition, although the sampling strategy was designed to gather interviews from program points-of-contact and other staff identified to be key informants, we have no way to assess whether informants could speak to everything that happens at a particular site. We did not directly interview veterans about their attitudes towards pharmacotherapy. Getting their input will help us understand the extent to which veterans do not have an interest in or need for these medications and whether program management and staff are accurate in their perceptions of their patients' needs. These interviews were conducted a year ago based on pharmacy data from 2012 and subsequent changes within the VA system, including academic detailing, have positively impacted prescribing. However, given that prescribing rates nationally in VA for any treatment setting are still under 10% (Finlay, Binswanger, et al., 2016), more work is needed to increase use of these medications.

4.2 Conclusions

To improve rates of receipt of pharmacotherapy for AUD among patients in residential treatment settings, the results of this study suggest the importance of increasing the number of willing prescribers who are on-staff within residential treatment and improving care coordination across clinical settings. Educating staff on the benefits of pharmacotherapy may help counteract the perception that specialized training or approval is needed to prescribe these medications. Efforts targeted at increasing patient interest or readiness for medications and staff perceptions of their interest may also benefit patients. As leadership engagement was also an important facilitator, a multi-level, multi-faceted implementation strategy may be needed to yield a meaningful impact on rates of receipt of pharmacotherapy for AUD.

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Figure 1.
 Consolidated Framework for Implementation Research domains and constructs (in bold)
 mapped to themes identified in the qualitative interviews.