



Shared Medical Appointments Role in the Opioid Epidemic Era: A Tool for Integration of Care

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Received date: April 28, 2017; Accepted date: May 26, 2017; Published date: June 02, 2017

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Abstract

Medical visits encompass multiple medical issues, leaving little time to address substance use disorder issues, such as medication-assisted treatment (MAT) for opioid use disorders (OUD). This becomes a barrier to expanding Office-Based Opioid Treatment (OBOT), as many physicians express concern about treating high-risk patients under the current time constrained treatment model.

Evidence shows that shared medical appointments (SMAs) are effective treatment models that increase health outcomes and are well received by patients. Research studies that come from primary care where large patient panels and limited access have necessitated the creation of innovative and efficient care delivery. Substance use disorders (SUDs) are chronic diseases comparable to diabetes and hypertension with similar treatment outcomes. Group therapy is well established as an effective, evidence-based treatment for SUDs. Using the SMA model with elements of group therapy to provide OBOT allows physicians to spend more time with their patients, albeit in a group setting.

SMA for OBOT will allow these physicians more time with high-risk patients. When done with elements of group therapy, SMAs can provide quality and cost-effective treatment. This manuscript will provide an overview of the scope of the current opioid problem, current treatment practices and barriers to treatment as well as guidelines on how to implement SMA model in an integrated care setting.

Keywords: Opioid treatment; Substance use disorder; Cardiovascular disease; Primary care

Introduction

Patients suffering from any chronic disease are at greater risk of poor health outcomes and quality of life, and increased costs of care. Chronic illnesses such as cardiovascular disease, diabetes, and pulmonary diseases account for 70% of deaths each year, and these have been estimated to account for more than 80% of the health care costs in the United States [1-3]. A multitude of approaches and treatment modalities have been implemented to decrease hospitalizations and complications of patients with these types of conditions. One model of care that includes both an educational component and elements of an individual provider office visit is the shared medical appointment (SMA) [4]. SMAs are a treatment modality that can improve early identification of at-risk people and ensure appropriate follow-up. During these interviews patients with similar diagnoses are simultaneously educated and treated. This treatment modality allows the patient's needs to be addressed individually while at the same time benefitting from education and shared learning. There is evidence demonstrating that the implementation of SMAs integrated into buprenorphine treatment in an OBOT setting provides cost effective, quality care and significant increases in patient satisfaction [5,6]. Patients with complex social issues and co-occurring medical and mental health diagnoses have

found this treatment model to be beneficial in increasing their social support involvement, resolution of legal cases and in decreasing their treatment's attrition levels [7,8]. Further, research of the SMA as a treatment model has been found to improve outcomes and patient satisfaction in several chronic conditions including diabetes mellitus [9-20], hypertension [13-19] and surgical procedures [20-27].

Diabetes mellitus type II

In type 2 diabetes, participation in SMAs appears to lead to lower glycosylated haemoglobin (HbA1c) levels, better blood glucose monitoring, improved quality of life and weight control, and increased diabetes knowledge [9-12]. A five-year study in Italy found patients to have better control of their disease and a decreased medication requirement when enrolled in SMAs as compared to those who had private appointments [10] but did not improve lipid levels or lower care costs [13-16].

Hypertension

According to the CDC, close to 70 million adults in the US have high blood pressure [17]. Preventing and controlling hypertension is an essential component for reducing the risk of acquiring cardiovascular diseases. Historically hypertension has been treated in individual appointments, with 70% of the patients using medications to treat the condition [17]. While few studies have aimed to adapt

SMA to the direct care of hypertension, studies have shown that the implementation of SMAs can improve medication compliance and goals-setting activity, improving adherence to treatment and decreasing risk of cardiovascular complications compared to standard care [18-21,28,29].

Neuromuscular disorder

Neuromuscular disorders are progressive complex diseases for a current absence of cure, requiring adjustment of management and treatment options. The average 20 min outpatient primary care visit leaves little time to address the patient's psychosocial and educational needs [30]. The use of SMAs has demonstrated benefit to individuals with cognitive dysfunction related to neuromuscular disorders in both self-efficacy and resources utilization [31,32]. These studies provide evidence that SMAs can improve the quality of life of patients with neuromuscular disorders [31].

Surgical procedures

SMAs have been used as a follow up intervention for patients recovering from surgical procedures, for patient satisfaction rated higher compared to standard care appointments [22-27]. In these studies SMAs were shown to have a role in the care of surgical populations, offering a cost-effective care model that increased education and support for both patients and their family members [26].

Current treatment and barriers to treatment for OUDs

Historically, the treatment of SUDs, in general, has tended to be fragmented, with psychological and psychosocial interventions taking place separately from any medication assisted treatment being provided, methadone maintenance being a notable exception. With the recent increase in buprenorphine prescribing, the past several years have seen a shift in which physicians are providing office-based buprenorphine treatment. Initially, most providers of buprenorphine were psychiatrists, but more recent data suggest a shift away from psychiatrists towards primary care physicians (PCPs) with the prescribing of buprenorphine by providers with appropriate training increasing significantly over the last decade [33,34]. However, even with the marked increase in training and treatment of OUDs by PCPs, studies have shown that multiple factors are discouraging PCPs from prescribing office-based buprenorphine.

While several models of OBOT exist, the most routinely used models consist of low-frequency direct physician contact and high-frequency use of ancillary services, including self-help and peer led groups and other non-specialty based treatments [35-37]. Most studies exclude OUD patients defined as high risk (those unable to maintain abstinence after repeated attempts, multiple substances of abuse, mental health comorbidities, uninsured and homeless) which presents as a significant limitation to generalizability [36,37]. Other significant limitations to providers being willing to treat OUD patients was the fear of patient neediness, high cost, and time constraints-namely challenges associated with the frequency of needed visits, especially early in the treatment [38-45].

Data on the current number of people being treated in other settings with buprenorphine for OUDs is not known. SAMHSA's records indicate that as of 2017 there were over 30,000 buprenorphine prescribers, with just over 30% being approved to treat 100 patients [46]. If each provider were at capacity, this would mean that just over

1.5 million people could be treated with buprenorphine. Even with these reasonable overzealous assumptions, around half a million individuals would still be unable to receive treatment with buprenorphine [47].

Efforts are being made to expand access by increasing prescriber limits and allowing PAs and NPs to become waived; however, the data remains clear that many providers are not prescribing even close to their limits. One study of waived physicians in Massachusetts showed that of 235 physician respondents, only 66% were prescribers with a mean of 14 patients [48]. Notably, according to SAMHSA, Massachusetts has the fifth highest number of waived physicians of all 50 states, Guam, Puerto Rico, the US Virgin Islands, and Northern Mariana Islands [46].

While these data suggest that the current availability of prescribers presents as one barrier to treatment for OUDs, several other obstacles exist. These include wait times, clinicians comfort, and stigma, both within the general public as well as the health care system. Wait times appear to be more than just a function of patient volume and provider availability. There is some suggestion in the literature that waiting times can be used to "weed out" unmotivated substances users, an ideology challenged in the available data [49-52]. Data does indicate that drug addiction does not spontaneously remit and that those on waiting lists are likely to continue their current patterns of substance use during the wait time and are nearly half as likely to enter on treatment [51,53,54]. Other barriers to treatment for physicians include a lack of institutional, nursing, and office support, concerns about patients, costs, reimbursements, and a lack of collegial support and coverage [43,48]. Additionally, Hutchinson et al. described that providers who were newly trained to use buprenorphine were rather cautious in the selection of patients with only 36% willing to accept a patient from another community [43]. These barriers have led to several proposed changes within the medical and legal communities; there remains much work to be done on increasing access to evidenced based treatments and decreasing the stigma associated with substance abuse in general and OUDs in particular. Significant research has been done related to these topics and is outside the scope of this paper [47,53,55-57].

So, despite the considerable evidence describing the benefits of buprenorphine for the treatment of OUDs, it is clear that many barriers to treatment remain. Psychiatry residency programs have taken an essential role in lessening the illicit opioid use and overdose epidemic. An analysis showed that the majority of psychiatry residency training programs offer buprenorphine waiver training and office based clinical opportunities to treat patients with OUDs [58]. Further, on a national level, various organizations that serve in diverse communities have created a resource and support system to promote evidence-based training in opioid prescribing and pain management. The Providers' Clinical Support System (PCSS) was designed specifically to offer more training, at no cost, in the treatment of SUDs [59]. Coordinated efforts to train and support teams of clinicians especially in small access areas, including mental health clinicians comfortable with on-site harm-reduction therapies, and reimbursing this care at a reasonable amount would be promising steps to addressing these barriers as well.

Proposed model for implementing SMAs into OUD treatment

Recent pilot studies show a benefit of incorporating SMAs as the treatment for OUDs [5-8,60]. It is recommended that groups be structured utilizing a multidisciplinary approach, including a physician facilitator and co-facilitator from different medical care providers. This will afford the dual benefit of allowing for increased medical visits and patient contact, as well as other providers becoming more familiar with prescribing practices (i.e., tolerance of illicit substance use, prescribing styles, etc.).

The group can be structured utilizing individual check-ins with each patient using four standard questions: 1) Any substance use since the last appointment? 2) Are you taking your medications exactly as prescribed? 3) Have you been in any unusual high-risk situations? 4) Is there anything else you would like to discuss after the group has finished checking in? The first three questions should be laid out as “yes or no” questions. It has been postulated that often patients will minimize their substance use and requiring a clear “yes or no” removes this flexibility and allows the individual to take full responsibility for their active substance use. Accepting responsibility for continued substance use allows for the patient to learn coping strategies to “control” the behavioral aspects of any SUD. The second question allows for a medication evaluation, opening the door for the patient to describe struggles with tolerating prescribed medications and side effects and allow an opportunity for education. The third question enables the patient to share what obstacles have gotten in the way of their sobriety. The use of the term “unusual” demonstrates the difference between “normal” and stable risk such as homelessness, poverty, cravings, etc. and additional stressors that may arise during treatment such as a physical injury or death of a loved one. The final question invites each patient to bring forth a topic that is important to him or her. This will often provide the basis for the group’s discussion, as many patients will bring up situations that they have found challenging or areas that they are concerned about with regards to treatment or recovery. Several patients will often reiterate this last answer in different ways allowing for several patients’ needs to be addressed in a group setting. It also provides an opportunity for the patients to share their experiences, challenges and coping skills with other team members.

It is suggested that group attendance is required for receiving a prescription thus meeting recommendations established by the FDA that patients on MAT also receive psychosocial counselling and other services that support recovery including peer-based recovery-oriented meetings for the attainment of long term abstinence. Having multiple groups per week will afford patients both the opportunity to miss their “home group” and still attend a group and receive their prescription as well as invite providers to feel more confident in treating higher risk patients, as these individuals can be asked to participate in multiple groups per week for additional support.

Conclusion

The opioid epidemic remains a significant public health burden. OUDs are treatable chronic conditions with evidence-based treatments available, one of which is the use of buprenorphine as a medication assisted treatment. However, it has been estimated that approximately 90% of people with OUDs diagnosis do not access treatment for OUDs and thus are in need of treatment.

The number of waived physicians able to prescribe buprenorphine remains low, with limited to no access offered to many patients, especially in rural settings. It remains uncertain whether or not increasing the number of patients that can be treated by a physician and allowing NPs and PAs to prescribe buprenorphine will offset this challenge. Several barriers exist for providers to prescribe buprenorphine and most of those that do prescribe are not treating the maximum number of patients.

One of the greatest limitations to the treatment of OUD is time pressure and its limitations around all medical specialties. SMAs have been found to be effective in the treatment of chronic conditions. For people with an OUD diagnosis, SMAs have been found to provide a benefit when integrated into buprenorphine treatment in an OBOT setting. The use of SMAs for OUDs and buprenorphine prescribing is one method to increase access to patients while simultaneously allowing providers to maximize productivity without sacrificing quality care.

Acknowledgement

This work was supported by grant 5T06SM060562-07 from the National Institutes of Health.

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