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BRIEF REPORT

Adapting the Shared Medical Appointment Model for the Management of Anxiety in Primary Care

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Abstract

Title: Adapting the shared medical appointment model for the management of anxiety in primary care.

Background: Anxiety disorders are highly prevalent and negatively impact the health of millions of people worldwide. Primary care physicians are often the first providers who diagnose and treat anxiety disorders. Unfortunately, many patients lack access to mental healthcare services to address their difficulties with anxiety. Prior research indicates that the Shared Medical Appointment (SMA) model is highly effective in addressing chronic illnesses. This pilot study aimed to present one primary care clinic's development of a Primary Care SMA for Anxiety Program, as well as results for its implementation.

Methods: Patients were recruited from two family medicine resident training clinics. The anxiety SMA program consisted of six monthly sessions, each with a different primary topic.

Participants completed the Generalized Anxiety Disorder-7 (GAD-7) scale before each session.

Results: A total of 28 patients participated in the Primary Care SMA for Anxiety Program (75% Female; mean age = 40.85, SD = 19.04). Of those, eleven patients (39%) participated in more than one session. Paired samples t-test results indicated a significant reduction in pre-GAD-7 (M = 10.9, SD = 4.96) to post-GAD-7 (M = 7.72, SD = 5.2) scores, t = 2.68, p = 0.02. These results find that participants demonstrated a significant reduction in anxiety symptoms and this may be due to participation in the Primary Care SMA for Anxiety Program.

Conclusions: The current study suggests that a SMA model may be effective in reducing anxiety symptoms for participants. This model may prove beneficial for effective anxiety treatment.

Abbreviations

SMA: Shared Medical Appointment; GAD-7: Generalized Anxiety Disorder-7

Introduction

Mental health disorders negatively impact our population, with an estimated 18.1 percent of adults in the United States having any mental illness, with anxiety and depression being the two most common disorders [1]. Looking at anxiety alone, there is an estimated global prevalence of 7.3% [2]. These numbers are not surprising to primary care physicians, who frequently diagnose and manage these conditions. Consensus supports a multifaceted approach to anxiety management, including psychotherapy, medication, and self-care [3]. Unfortunately, patients are often unable to access care due to lack of mental health resources or poor insurance coverage for mental health services, lack of communication between physicians and mental health providers, and mental health stigma. Despite evidence that group behavioral treatment is highly effective for anxiety [4-6], and evidence demonstrating benefit of Shared Medical Appointments (SMA) in treating chronic medical conditions, improving access to care, and improving patient satisfaction with care [7-9], we could not find a documented example of a SMA model for the treatment of anxiety.

To address this gap, we provide one clinic's pilot development of a Primary Care SMA for Anxiety Program,

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utilizing an interdisciplinary team (including family medicine providers, pharmacists, and psychologists) to increase access to care. Additionally, we completed a preliminary evaluation of the efficacy of this anxiety SMA program. We hypothesized that this model would reduce anxiety symptoms for participants and prove a feasible strategy to increase access to care.

Methods

This study was reviewed by the University of Utah Institutional Review Board and found to be exempt. We conducted a retrospective analysis to determine the efficacy of an anxiety SMA program to impact generalized anxiety disorder-7 (GAD-7) scores.

Recruitment

The study population included all patients who were recruited to the anxiety SMA program between October 2017 and May 2019. Patients were recruited from two family medicine residency clinics based on referral from their primary provider. Patients were considered for the group visits if they were an active patient of either participating clinic and had any anxiety disorder diagnosis.

SMA group structure

The anxiety SMA program consists of six-monthly sessions, each with a different primary topic. Topics include introduction to anxiety, behavioral based therapy, pharmacotherapy for anxiety, insomnia management, lifestyle, and communication (see Table 1). All anxiety SMA sessions are led by a family medicine clinic provider, clinical pharmacist, and clinical psychologist. The SMA consists of a 2-hour session: A 30-minute check in, 1 hour for monthly content, and 30 minutes for wrap up and patient questions. During the check in process, patients are asked to complete a GAD-7 questionnaire, followed by a brief one-on-one meeting with the medical provider to discuss potential medication changes or other concerns they did not feel comfortable addressing in front of the group. Group size varied each session, as patients were able to join at any point in the cycle. Patients were included in the current study if they completed at least two of the six appointments per cycle.

Data collection and analysis

Patient data, including demographic information and GAD-7 scores, were collected via retrospective chart review of the electronic medical record. A paired-samples t-test was conducted to investigate pre- and post-changes in GAD-7 scores amongst participants who completed at least two sessions, using scores from the first and the last anxiety SMA session they attended.

Table 1: Primary Care SMA for Anxiety Program Discussion Topics.

Month	Primary Discussion Topic	Details
Month 1	Introduction to Anxiety	• Education about anxiety • Discussion of behavioral strategies to address anxiety • Pros and cons of medication options for anxiety management
Month 2	Behavioral Interventions	• Introduction to meditation • How to incorporate meditation into daily life • Practice meditation including breathing-focused and body scan meditation • Provide community, smartphone app, etc. resources for continued practice of meditation
Month 3	Medications for Anxiety	• In depth discussion about medication options for anxiety management • Pros and cons of each medication • Education and discussion about herbal medicine options for anxiety
Month 4	Insomnia Management	• Education about insomnia, including causal factors • Cognitive-behavioral strategies for insomnia, including sleep hygiene, sleep restriction, cognitive restructuring • Introduction to trackingsleep patterns • Pros and cons of prescription andover the counter medication options for insomnia
Month 5	Lifestyle Habits	• Introduction to developing healthy habits for good health and anxiety management • Education about benefits of exercise for anxiety and how to incorporate exercise into daily life • Discussion of healthy eating habits for anxiety management
Month 6	Effective Communication	• Discussion of interpersonal situations causing anxiety • How to manage anger and frustration • Strategies for communicating in an assertive manner

Results

A total of 28 patients participated in the anxiety SMA program during the study period, with 11 of 28 completing at least two sessions. Participant characteristics are presented in Table 2. As seen in Table 3, analyses of variance indicated that there were no mean differences in initial GAD-7 scores between participants who completed only one session in comparison to participants who completed at least two sessions, $F(1, 26) = 0.06$, $p > 0.05$. Additionally, as seen in Table 4, paired samples t-test results among the 11 participants who completed at least two sessions indicated a significant reduction in pre-GAD-7 to post-GAD-7 scores. These results suggest that participants who completed at least two sessions demonstrated a significant reduction in anxiety symptoms while participating in the Primary Care SMA for Anxiety Program.

Discussion

With a reduction in GAD-7 scores among patients who completed more than one session, this pilot study suggests that the SMA model may be an effective treatment modality for anxiety. Additionally, the study demonstrates that it is may be feasible to adapt the SMA model to manage anxiety in a primary care setting. Not only does the SMA model reduce barriers to patient access to a multidisciplinary care team, but it also allows patients to benefit from a group format to address symptoms. Specifically, patients have the opportunity to learn from each other as they practice anxiety management skills, and may experience reduced stigma regarding the diagnosis of anxiety [10].

Challenges faced during the implementation of this anxiety SMA program include patient recruitment and retention difficulties as well as limited administrative resources. This is in line with other studies of SMA for chronic health conditions, which found poor or variable attendance [11-14]. The SMA model requires variations to usual one-on-one visit scheduling, which may require additional staff training. Patient recruitment required initial education of providers and staff about the SMA program structure and referral process with multiple subsequent reminders. Increasing the frequency of groups (e.g. weekly or biweekly) may improve referral and retention rates compared with the monthly model used in the present study.

Limitations of the current study include lack of a control group and small sample size, making it difficult to assess causality and the broad effects of the intervention. Lack of information about patients completing a single session limits understanding of reasons for drop-out. Reduction in anxiety symptoms over time remains to be examined. Future studies should evaluate the effectiveness of the anxiety SMA program with larger sample across multiple clinical sites and compare this model with the standard one-on-one visits between the patient and primary care provider. Additionally, future research should include follow up with patients after completion of the anxiety SMA as well as explore mechanisms that drive the efficacy of this model, including improvements in mental health variables such as depression or sleep, or psychosocial variables such as improved social support.

In summary, the present pilot study provides an overview of the Primary Care SMA for Anxiety Program and evidence of utility in management of anxiety as well as its potential feasibility in primary care and effectiveness in reducing anxiety symptoms. While many examples exist for SMA models for treatment of chronic medical conditions, we were unable to find other studies of utilizing the SMA model for mental health

Table 2: Participant Characteristics (N = 28).

Variable	M	SD	Range
Age (years)	40.85	19.04	19-65
Sex (%)			
Male	7 (25%)		
Female	21 (75%)		
Race (%)			
White/Caucasian	19 (67.9%)		
Hispanic/Latino	7 (25%)		
Other	2 (7.1%)		

M = Mean; SD = Standard Deviation.

Table 3: Results of analysis of variance investigating mean differences in initial GAD-7 scores among participants who attended only one session vs. participants who attended multiple sessions.

Participants with only one session		Participants with more than one session			
mean	SD	mean	SD	F	p
11.4	4.65	10.9	5	0.06	> 0.05

Table 4: Results of paired-samples T-test investigating differences in pre-GAD-7 to post-GAD-7 scores among participants who attended multiple sessions.

Pre-GAD-7		Post-GAD-7			
mean	SD	mean	SD	t	p
10.9	4.96	7.72	5.2	2.68	0.023

conditions. More studies are needed to determine the true feasibility and efficacy, yet this model provides primary care settings with a model that has the potential to maximize the skill sets of multidisciplinary teams to improve patient access to anxiety treatment.

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Declarations

Ethics approval and consent to participate

This study was reviewed by the University of Utah Institutional Review Board and found to be exempt.

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