Mental Health Referral Practices and Diabetic Management at Community Medical Alliance Clinic (Bell Site) Northeast Community Clinic (NECC)

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Introduction/Background

Depression and Anxiety are two of the most prevalent chronic conditions in the primary care setting, yet they are often under diagnosed and undertreated.[1] It has been estimated that 1 in 10 patients in the primary care setting have major depression leading to loss of productivity, functional decline, and increased mortality.[2] Therefore the need for accurate diagnosis and effective management of depression and anxiety are of paramount importance in primary care. It has been suggested that the primary care office is the only mental health system for many patients.

This importance of timely and appropriate treatment for mental health is critical in the setting where patients and providers are expected to manage a series of comorbid conditions. The presence of a comorbid condition such as diabetes can be particularly concerning in patients with a diagnosis of depression and/or anxiety. Compared to patients with diabetes alone, patients with depression and diabetes have been shown to have poorer self-management (i.e., following diet, exercise regimens, and checking blood glucose) and to have significantly more lapses in refilling oral hypoglycemic, lipid-lowering, and antihypertensive medications.[3] Studies have also indicated that poorer health outcomes were found in the diabetic Mexican Americans with a comorbid diagnosis of depression, including death rates that are 3x higher than non-depressed diabetics.[4] The findings of this study are highly applicable to the patient population at the Community Medical Alliance Clinic (CMA), which serves a patient population that over 75% Hispanic.[5] It also highlights the importance of paying special attention to patients who suffer from depression and/or anxiety and any additional comorbidity. Appropriate therapy in this cohort reduces depressive symptoms and improves overall well being.[6]

Mental Health Management in primary care setting

The management of depression in the primary care setting has been described in the literature as simply enough. There is evidence to suggest that the quality of care for anxiety disorders in primary care settings may be particularly poor and that anxious patients frequently leave the physician-patient transaction with substantial dissatisfaction, resulting from perceived unmet need.[7]

Whooley and Simon delineated the management of depression in the primary care outpatient setting in their review article, *Managing Depression in the Outpatient Setting*. Primary care physicians with appropriate training and resources can opt for treating depression with supportive care, pharmacotherapy, herbal remedies, structured pharmacotherapy and psychiatric referral. [8]

Mental Health Services at CMA

An essential component of the management of patients with depression and/or anxiety at CMA is referral to mental health services outside of the clinic. The resources available to patients will depend in part on the medical coverage status. Providers work with patients to identify the appreciate services for patients and proceed to refer out for mental health services. Appropriate and timely referrals by providers are a critical component of insuring that patients are being treated for depression and/or anxiety.

The purpose of this study was to identify the referral practices of providers at the Community Medical Alliance clinic with regards to patients with an ICD-9 diagnosis of Depression and/or Anxiety, not otherwise specified (nos). In addition to this, patients with a comorbid diagnosis of type II diabetes were highlight and their diabetic management was evaluated through their last 3-recorded Hemoglobin A1c values.

Methodology

The study was conducted in the context of a retrospective chart review of patients with an ICD-9 diagnosis of major depressive disorder, anxiety disorder nos and type 2 diabetes.

Participants

Participants in this study were selected through an initial administrative database search. Patients above age 18 who were seen at the CMA clinic in the past 12 months with a diagnosis of major depressive disorder, anxiety disorder, nos. A second administrative search was done for patients with a comorbid diagnosis of major depressive disorder and/or anxiety, nos and type 2 diabetes.

A list of medical charts that met the criteria were selected and provided to the medical student conducting the project. A total of 75 charts were reviewed. Charts excluded from the project included those which could not be found, ones in which a diagnosis of either major depressive disorder or anxiety was not identifiable, patients with a diagnosis of schizophrenia and autism. The rational for removing patients with schizophrenia and autism is that they are likely receiving mental health and behavioral services and are not presenting to the primary care office in need of a referral.

Chart Review

A 3rd year medical student, who had received instruction from the medical providers as well as referral team and how to navigate the medical records, reviewed the charts. The medical charts were reviewed in sequential order to abstract relevant data from each patient. The *progress notes* and *physical exam* forms were used to collect demographic information as well as the diagnosis of depression and/ or anxiety and any

referral. The *consults* section of the chart contained information regarding the referral site. For patients with a diagnosis of type 2 diabetes, the *laboratory* section of the chart was reviewed and the 3 most recent hemoglobin A1c values were recorded.

Data Analysis

The data from the charts was recorded on a data collection sheet, numerically coded and then recorded onto an excel spreadsheet. All of the data analysis was preformed using Microsoft Excel.

Results

Demographics and Diagnosis

The sample of patients with a diagnosis of major depression and/or anxiety nos, had a mean age of 48.7 ranging from ages 21-81. The sample had a distribution of 28% (n=21) males and 72%(n=72) females. The distribution of mental illness among the sample was as follows Depression 49.3% (n=37), Anxiety 21.3% (n=16) Depression and Anxiety 29.3%(n=22) and type-2 diabetes 24.0% (n=18).

Referral Practices for Depression and/or Anxiety

For patients with a diagnosis of depression in this study providers referred for mental health services 56.7% of the time and 13% of patients deferred the services. Providers referred patients with depression and anxiety at the highest rate, 59% of the time and 13.7% of patients deferred the services. Anxiety was the least referred form of mental illness at a rate of 31.2% and 25% of patients deferred.

Diabetic Management and Referral

The average hemoglobin A1c for the subset of patients with a diagnosis of depression and/or anxiety and type-2 diabetes was 8.1 with values ranging from 5.3-13.1.

The percentage of patients not referred among the diabetic cohort was 38.8% higher than depression and/or anxiety alone.

Table1. Demographics and Diagnosis

	n	%
Mean Age	48.7	
Male	21	28.0
Female	54	72.0
Depression	37	49.3
Anxiety	16	21.3
Depression and Anxiety	22	29.3
Type 2 Diabetes	18	24.0

Table. 2 Referral Practices for Depression and/or Anxiety

	Referred to Mental Health	**Not Referred to Mental Health**	**Deferred Referral**
Depression=37	21 (56.7%)	11 (29.7%)	5 (13.5%)
Anxiety=16	5 (31.2%)	7 (43.8%)	4 (25%)
Depression and Anxiety=22	13 (59.0%)	6 (27.3%)	3 (13.5%)

Table. 3 Diabetic Management and Referral

Average Hb A1c	8.10

Referred to Mental Health	11 (61.1%)
Not Referred to Mental Health	7 (38.8%)

Discussion

The results of the study showed that nearly 70% of the time providers offer referrals for depression although 13% of these are deferred. The findings of this study are highly limited in that they only illustrate a documentation of a referral. It is not clear what portion of patients that were referred followed up with the referral and commenced treatment for their depression. Similarly the figure of nearly 30% of patients not referred many not tell a full story, it is not clear whether patient was receiving treatment outside of the clinic network not necessitating a referral.

In regards to referrals for anxiety the results indicate that providers CMA refer 31.2% of the time, which is consistent with values in the literature of 37%[9], which includes all forms of anxiety. The rate for referral in comorbid anxiety and depression were also higher in the aforementioned study which is consistent with the findings in this study where patients with comorbid diagnosis have the highest referral rate nearly 75% including those who deferred. One of the reasons for which anxiety alone maybe referred less often is that provider may feel more comfortable prescribing anti-anxiolytics or patients may have less stigma regarding these meds in comparison to those for depression.

The second component of this study looked at subgroup of the mental health patients which a comorbid diagnosis of type 2 diabetes, in order to determine the quality

of diabetic management. The estimated prevalence for a comorbidity of depression in the diabetic population is estimated at 28% for women and 18% for men.[10] The diabetic subset made up 24%(n=18) of the charts reviewed which is consistent with estimates in the literature. The results show that the average hemoglobin A1c in this small subset was 8.1 ranging from 5.4-10.5. The average Hb A1c is above the target value to diabetic management. Additional information regarding the patients such as additional comorbidities or severity of mental health condition are not available in order to make a conclusion regarding the impact of mental health on diabetic management. What can be said is that on average this cohort is not where it should be and this may be an indication to screen and treat the diabetic cohort for mental health problems more aggressively. The referral practices for this group also showed that referral were provided 61.1% of the time. The referral rate for this group should be higher since likelihood of morbidity from depression and/anxiety is much higher for diabetics.

Limitations

This initial study had a series of limitations that prevented definitive conclusions from being drawn. One of the major limitations is this study is that the charts were reviewed by single reviewer. In order for the results to be more valid an additional reviewer should have verified that data extracted from the charts. Unfortunately this was not possible due a single researcher for the project. Another general limitation is that information is extracted from hand written charts. Writing may be illegible and providers may fail to document referral when in fact it was offered to a patient. This could have potentially under estimated referral practices.

Further Research

This small project was able to highlight some basic information regarding the referral practices for CMA. Further works needs to be conducted in order to determine whether the patients with referral are receiving mental health services and whether they feel that it is helping them. This study could be conducted via phone interviews to patients who have received a mental health referral to follow up with them. Many health centers have instituted a mental health caseworker to follow-up with patients who may be received services outside of the clinic. Additionally, further review could be conducted on the charts in which referral was not documented to identify patient or provider characteristic which are a barrier to receiving treatment via referral to mental health services.

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