Psychiatry Consultation Clinic:

A model that improves access to care and corresponds to decreased depressive symptoms

Catherine Parker, MD[1], Sejal Mahajan, BS[2], Christine Beran Flicek, MD[1],
Xioaming Zeng, MD, PhD[1], Parvathi Meyappan, BS, MS[3], Nate Sowa, MD, PHD [1]
1. University of North Carolina School of Medicine; 2. Campbell University Osteopathic School of Medicine;
3. University of North Carolina Department of Statistics

Introduction

An outpatient Psychiatric Consultation Clinic (PCC) was established in 2019 at the University of North Carolina to provide specialty support to primary care clinicians through diagnostic clarification and treatment recommendations. The PCC accepts referrals from primary and specialty care providers. Psychiatrists at PCC perform consultations, but not management. Patients are seen for up to three visits. To date, the characteristics and outcomes of an outpatient consultation model like PCC have not been well studied.

Methods

Adult patients seen in PCC from 2019 to October 2022 were included in this retrospective study. **The study's primary objective is to understand the efficacy of the clinic by studying patient care outcomes.** A secondary objective is to characterize patients and clinicians based on referral data obtained from a warehouse of electronic health record data and manually via chart review. Statistical analysis of de-identified data was completed in Excel. The University of North Carolina IRB approved the study protocol.

Hypotheses

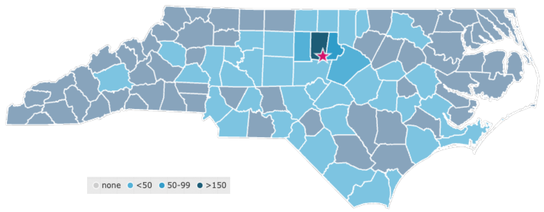
- Mean time to implementation of consult recommendations is < 30 days
- For consults recommending psychotropic medications, the percentage of implementation is ≥ 66%
- Patient's anxiety and depression symptoms will improve after consultation based on comparison of GAD-7 and PHQ-9 scores before and after consultation

Results

545 referrals met inclusion criteria:

- Mean age 42.2 years (SD 15.9)
- 69.4% female (n=378), 29% male (n=160)
- 70.3% white (n=383), 18.4% black/African American (n=100), 6.79% Other (n=37), 1.38% Asian (n=10)
- 90.6% not Hispanic/Latino (n=494), 8.81% Hispanic/Latino (n=48)
- 49.4% private insurance, 19.1% Medicaid, 15.6% self-pay, 13.4% Medicare
- 97.6% (n=532) North Carolina residents, 91.35% from metro areas (Fig. 1)
- 127 referring clinicians

FIGURE 1. Referrals from 41 counties in North Carolina



- ☆ **39.6 days** (SD 31.1): mean time from referral to first appointment.
- ☆ **~ 1.1 appointments** per referral
- ☆ **18.5 days** (SD 28.2): mean time from consultation to implementation of recommendations (Fig. 4)
- ☆ **81.4%** of medication recommendations implemented (Table 3).
- ☆ **23.9% of subjects** (n=160) referred to UNC Psychiatry for longitudinal care

TABLE 1. Clinical Characteristics

Diagnostic Classification (DSM V-Tr)	Subjects (n=532) N	%
ADHD	**107**	**19.63%**
Alcohol Use	24	4.40%
Anxiety	**189**	**34.68%**
Bipolar Spectrum	**52**	**9.54%**
Depressive	**425**	**77.98%**
Eating	3	0.55%
Medical	5	0.92%
Neurocognitive	3	0.55%
OCD	12	2.20%
Other	13	2.39%
Other substance use	11	2.75%
Personality	13	2.39%
Schizophrenia Spectrum	10	1.83%
Trauma/Stressor	**139**	**23.85%**

TABLE 2. Anxiety and Depression Symptoms

	GAD-7		PHQ-9	
	N=111	SD	N=222	SD
Mean Before	13.5	5.1	15.5	5.9
Mean After	10.6	6.3	10.6	6.6
Mean Change 95% CI	- 2.9 [-3.93, -1.87]	5.5	- 5.0 [-5.9, -4.04]	7.3
	N=111	%	N=222	%
Reduction (≥5 pt. decrease)	42	37.5%	112	50.5 %
Remission (After Score <5 pts)	24	22.9%	45	21.1%
Response (≥50% decrease)	29	26.4%	64	29.2%

FIGURE 2. Change in GAD-7

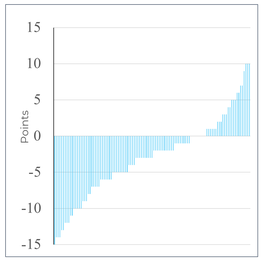


TABLE 3. Prescriptions

Medication Class	(n=363) N	%
Anti-depressant	**236**	**65.0%**
Anti-psychotic	34	9.3%
Non-sedative anxiolytic	34	9.3%
Stimulant	26	7.2%
Mood stabilizer	10	2.8%

FIGURE 3. Change in PHQ-9

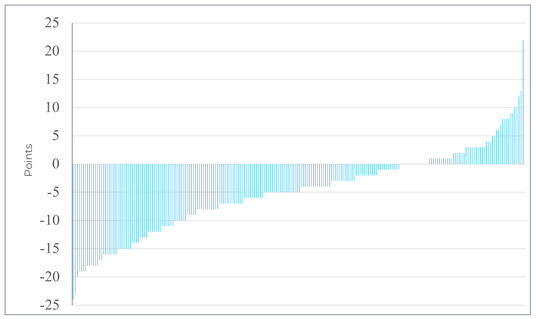
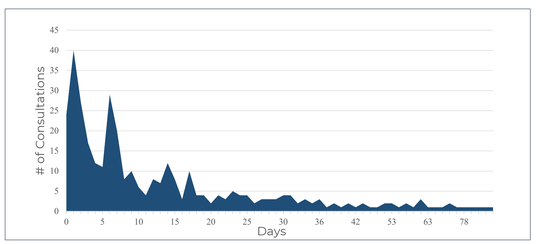


FIGURE 4. Days to Implementation



Discussion

- Broadly, the goal of our study is to better understand how the outpatient direct consultation model operates in real-world conditions.
- Our demographic data show we are serving a relatively diverse population consistent with published data about adults seeking mental healthcare in the US. [1]
- The mean time to referral of ~40 days is shorter than the general wait to be seen in our specialty psychiatry clinics (~6 to 9 months), so this model may increase timely access to mental healthcare. [2]
- The changes in depression and anxiety scores were statistically significant.
- Additionally, the reduction of 5 points on the PHQ-9 corresponds to a clinically significant decrease in symptom severity (i.e. from severe to moderate). [3]

Conclusion

Data from our study of an outpatient psychiatry consultation clinic suggest that a consultation model can improve timely and equitable access to specialty psychiatric care and improve clinical outcomes. Further research is required to establish whether the improvements in depression and anxiety symptoms observed in our study are reproducible and sustained over time.

Select References

1. Substance Abuse and Mental Health Services Administration, Racial/Ethnic Differences in Mental Health Service Use among Adults. HHS Publication No. SMA-15-4906. SAMSA 2015; 21-29.
2. Coombs NC, Meriwether WE, Caringi J, Newcomer SR. Barriers to healthcare access among U.S. adults with mental health challenges: A population-based study. SSM Popul Health 2021; 15:100847.
3. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med 2001; 16(9):606-13.

All authors have no conflicts of interest to disclose.