Improving Access to Specialized Behavioral Health Care for Women - An Evaluation of the Women's Behavioral Health and Wellness Program

Project Overview

Women's behavioral health is important across the lifespan. For instance, poor perinatal behavioral health contributes to maternal mortality and adverse child outcomes[1]. Additionally, women of all ages, but particularly perimenopausal and menopausal women, often experience depression and anxiety in conjunction with physical symptoms associated with changes in their reproductive system[2,3]. The Women's Behavioral Health and Wellness (WBHW) team aims to provide specialty behavioral health care to women across the lifespan and support for a myriad of health challenges including perinatal and postpartum mental health, fertility, infant loss and grief, menopause, pelvic pain, and sexual health.

Evaluation Objective

Using data from electronic health care records (EHR), WBHW team-collected data, WBHW team member interviews, patient surveys, and patient interviews, we evaluated the impact of WBHW on access to specialized behavioral health care, management of depression and anxiety, and patient satisfaction with care.

Program Elements

The WBHW team received funding in 2020 during the onset of the global COVID-19 pandemic. While originally funded to provide integrated care solely in outpatient primary care and OB/GYN clinics, many of these clinics did not have the capacity or space to begin integrated care while adapting to the pandemic. Given that the need for specialty behavioral health care remained prevalent and grew during the pandemic, WBHW began offering services in clinics that had the capacity to start a new initiative, including the mother-baby inpatient unit and the outpatient behavioral health clinic on the Anschutz campus. This resulted in WBHW providing care through four different service lines (Figure 1).

Care Coordination	Integrated Inpatient	Integrated Outpatient	Behavioral Health Outpatient
Referrals: Received from integrated settings, self referral, and community	Referrals: Message from Pathways team indicating needed support	Referrals: Warm handoff* from medical provider or after chart review	Referrals: Received from care coordination team
Offerings: Comprehensive intake with behavioral health provider to determine if appropriate for behavioral health outpatient services. If not, connected with community resources	Offerings: Medication management for patients participating in the Pathways program, an inpatient consultation-liaison team at University of Colorado Hospital on the labor and delivery and mother-baby units	Offerings: Perinatal and non-perinatal behavioral health services for women within their existing health care clinic, including primary care, Breast Center, and OB/GYN	Offerings: Behavioral health care via individual or group therapy. Includes specialty behavioral health care such as birth trauma therapy, mother-infant didactic therapy, and consultation for medical procedures
Care plan: Transitionary care; either scheduled with behavioral health outpatient service or connected with community	Care plan: Ad-hoc medication management for patients receiving behavioral health care with non-psychiatrist providers	Care plan: 4-6 sessions with a behavioral health provider via telehealth or in-clinic	Care plan: Ongoing treatment through the perinatal period and postpartum, into perimenopause

Note: *A warm handoff is a care transition performed between the medical provider to behavioral health provider in front of the patient (in-person or via telehealth)

Figure 1. *Overview of WBHW service lines and processes*

[1] Howard, L. M., & Khalifeh, H. (2020). Perinatal mental health: a review of progress and challenges. *World Psychiatry*, *19*(3), 313-327.
[2] Biaggi, A., Conroy, S., Pawlby, S., & Pariante, C. M. (2016). Identifying the women at risk of antenatal anxiety and depression: A systematic review. *Journal of Affective Disorders*, *191*, 62-77.
[3] Toffol, E., Heikinheimo, O., & Partonen, T. (2013). Associations between psychological well-being, mental health, and hormone therapy in perimenopausal and postmenopausal women: results of two population-based studies. *Menopause*, *20*(6), 667-676.

QUANTITATIVE ANALYSIS

Methods Overview

The quantitative analysis characterizes the patients seen and the type of care provided by the various WBHW service lines between January 1, 2021 and December 31, 2023. Early 2021 reflects when the project team began consistently collecting data using tracking spreadsheets and flowsheets. Patient Health Questionnaire 9 Question Screening (PHQ-9) and General Anxiety Disorder 7 Question Screening (GAD-7) scores for patients seen in the integrated outpatient and behavioral health outpatient settings were extracted from Epic. PHQ-9 and GAD-7 were sent to patients 30 days prior to an encounter in preparation for their visit; scores generated during these 30 days were considered relevant to the encounter. The scores relevant to the first and last WBHW encounter were compared using paired t-tests.

Results

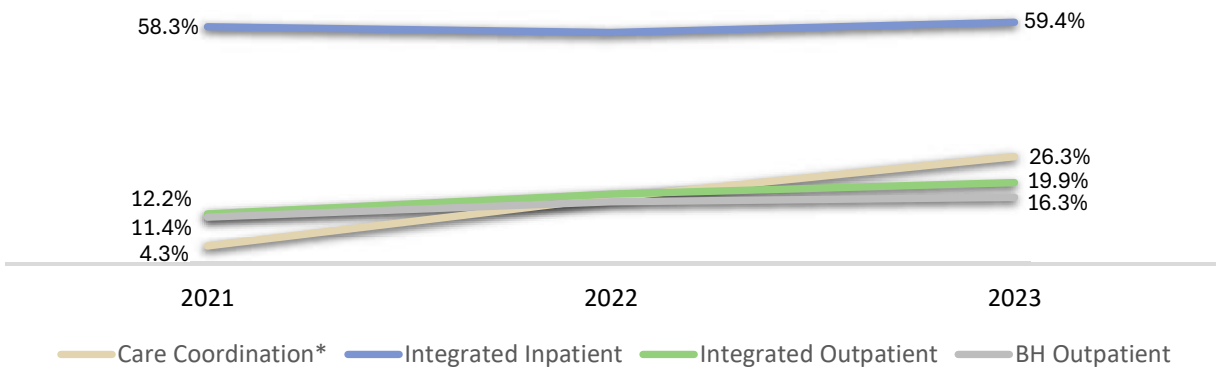
Over this 36-month evaluation period, WBHW saw 3,294 patients across their four service lines, with some patients utilizing services in multiple settings. About a fifth (18.4%) of the patients seen were Medicaid recipients, with the highest percentage seen in the integrated inpatient setting. Most patients were seen in the integrated outpatient setting, which includes the Women's Integrated Services in Health (WISH) clinic, OB/GYN clinics at UCHealth and Rocky Mountain Health, the Breast Center, and other clinics focused on sexual health.

Table 1: Patient characteristics between WBHW service lines

	Care Coordination N = 1250		Integrated Inpatient N = 160		Integrated Outpatient N = 2073		BH Outpatient N = 1655	
Standard Demographics								
Medicaid coverage	188*	(15.0%)	93	(58.1%)	343	(16.5%)	241	(14.6%)
Caucasian					1515	(73.1%)	1330	(80.4%)
Hispanic ethnicity					306	(14.8%)	187	(11.3%)
Primary language English					2045	(98.6%)	1646	(99.5%)
Urban residence county	736*	(58.9%)	140	(87.5%)	2014	(97.2%)	1599	(96.6%)
Age, mean (StDev)	34.5*	(9.8)	30.0	(6.0)	41.8	(14.6)	37.2	(10.2)

Note: *information missing for 35-40% of Care Coordination visits; StDev = standard deviation; grayed out cells indicate high percentage missingness of data

While nearly a fifth of patients seen overall by WBHW during the evaluation plan were Medicaid recipients, a steady increase in the percentage of patients with Medicaid was seen through all WBHW service lines since program inception. As seen in Figure 2, all service lines were seeing a higher percentage of Medicaid patients in 2023 than in 2021, indicating improved access to specialty behavioral health care for Medicaid patients over time.



Note: *information missing for 20% of Care Coordination visits; may not be accurate Medicaid representation for this service line

Figure 2. *Percentage of WBHW patients with Medicaid: Three-year trend*

During the evaluation period, WBHW had over 15,000 encounters across all service lines. Most (54.4%) were telehealth behavioral health outpatient encounters. All inpatient encounters were for perinatal medication management, whereas most outpatient encounters were psychotherapy. Non-perinatal health encounters included treatment for premenstrual dysphoric disorder (PMDD), menopause, sexual health, cancer, chronic illness, pain, sleep, and primary care. Non-perinatal mental health encounters included anxiety, depression, neurocognitive disorders, and trauma related disorders.

Table 2: Encounter information between WBHW service lines

	Care Coordination N = 1348		Integrated Inpatient N = 238		Integrated Outpatient N = 5069		BH Outpatient N = 8663	
Type of Encounter								
Telehealth or eConsult+			4	(1.7%)	3795	(74.8%)	8327	(96.1%)
In-person			233	(97.9%)	1266	(25.0%)	277	(3.2%)
Primary Service								
Health Behavior			0	(0.0%)	417	(8.2%)	96	(1.1%)
Medication Management			238	(100.0%)	822	(16.2%)	3708	(42.8%)
Psychotherapy			0	(0.0%)	3293	(65.0%)	4804	(55.5%)
Individual			0	(0.0%)	3241	(98.4%)	3976	(82.8%)
Group/Family			0	(0.0%)	41	(1.2%)	799	(16.7%)
Testing			0	(0.0%)	21	(0.4%)	0	(0.0%)
Warm Handoff			0	(0.0%)	492	(9.7%)	5	(0.1%)
Perinatal vs. Non-Perinatal Encounters								
Perinatal	349*	(25.9%)	238	(100.0%)	816	(16.1%)	5803	(67.0%)
Non-Perinatal	382*	(28.3%)	0	(0.0%)	4237	(83.6%)	2832	(32.7%)
Health	112	(29.3%)	0	(0.0%)	1832	(43.2%)	1111	(39.2%)
Menopause	14	(12.5%)	0	(0.0%)	35	(1.9%)	133	(12.0%)
Sexual Health	19	(17.0%)	0	(0.0%)	233	(12.7%)	117	(10.5%)
Other	79	(70.5%)	0	(0.0%)	1558	(85.0%)	856	(77.0%)
Parenting/Infant/Child	0	(0.0%)	0	(0.0%)	2	(0.0%)	5	(0.2%)
Primary Mental Health	270	(70.7%)	0	(0.0%)	1717	(40.5%)	1260	(44.5%)
Other	0	(0.0%)	0	(0.0%)	633	(14.9%)	401	(14.2%)

Note: +eConsult (accounting for 12 encounters in the table above) is physician-to-physician communication about a patient's condition that leverages a specialist's expertise; *Perinatal/Non-perinatal status missing for 46% of Care Coordination visits; grayed out cells indicate high missingness of data

To manage depression and anxiety, the PHQ-9 and GAD-7 were sent to patients as part of their intake paperwork before outpatient encounters. A third of outpatient patients never completed the PHQ-9 (32.6%) or GAD-7 (34.0%)*. For patients that were screened with these tools 30 days before their first and last WBHW encounters, a significant decrease was seen in scores, indicating improvement in depression and anxiety symptoms (Figure 3). A paired samples t-test showed that patient's PHQ-9 significantly decreased from baseline WBHW visit (Mean = 9.96, SD = 6.29) to last WBHW visit (Mean = 8.95, SD = 6.36; $p < .001$) and GAD-7 significantly decreased from baseline WBHW visit (Mean = 9.66, SD = 5.69) to last WBHW visit (Mean = 8.49, SD = 5.70; $p < .001$). While this change may not be clinically meaningful, it does suggest a positive trend for patients seen in the WBHW outpatient settings. Future evaluations may focus on changes in scores for patients that screened in the moderate or moderate-to-severe ranges at baseline.

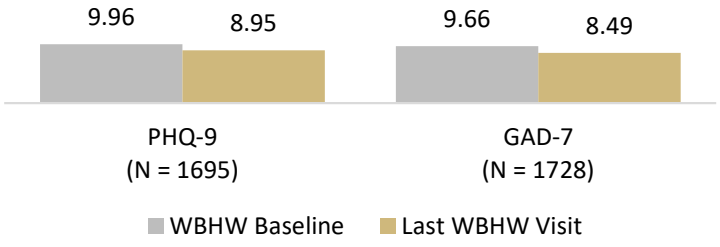


Figure 3. *Reduction in average PHQ-9 and GAD-7 scores before and after WBHW outpatient care*

*In late 2023, the project team automated the process for administering these scales within the outpatient practice; this may result in higher completion rates.

FEEDBACK FROM TEAM MEMBER INTERVIEWS

Interviews were conducted with eleven WBHW team members, including eight behavioral health providers, two medical providers, and a care coordinator. Responses were thematically analyzed into two domains: successes and challenges.

Project Successes

One of the biggest successes of this program shared by team members is the specialty care provided by the WBHW behavioral health providers. Behavioral health paired with reproductive care for women is commonly overlooked, though team members shared there is a high need in this area. As one team member shared "it's about the availability of specialized providers who really have knowledge in some of the niches that we all do…that are more complicated than a general anxiety referral." The comprehensive range of services available through this program, from group therapy for new mothers to individualized trauma therapy, is a true highlight of WBHW.

"We are pretty unique in that we work with such a specific population and a population that oftentimes does get missed and falls through the cracks."

The range of services is seen to improve access to and quality of care for patients. Within the integrated setting, team members shared the warm handoff from a medical provider to a behavioral health provider not only reduced time to care but also took the onus off patients to follow a referral. As one team member shared "a warm handoff makes accessing behavioral health easier and less intimidating…[it] increases the probability of actually obtaining that service." In the outpatient setting, the care coordinator shared that wait times are almost non-existent compared to traditional referrals.

Many team members, including the medical providers, shared that this program is providing education to providers on the mental health challenges that surround women's hormonal health. One provider shared "reproductive mental health care is not very well taught in school…there's a real gap here in terms of knowledge level amongst general practitioners."

Almost all team members perceived a benefit for Medicaid patients. This type of specialty care is limited in the state of Colorado and many external behavioral health providers do not accept Medicaid; many WBHW Medicaid patients are receiving behavioral health care that they couldn't elsewhere. The team has made many pivots to increase the Medicaid population they serve, including increasing services in clinics where Medicaid serves a higher percentage of patients.

Project Challenges

Team members identified program barriers and had suggestions for improvement. Capacity was the biggest challenge discussed, including lack of having behavioral health providers working full-time on the project, turnover from care coordinators, inability to balance competing priorities in the academic setting, and lack of ability to provide services in Spanish in the behavioral health outpatient clinic. The team has changed job descriptions and adjusted roles for existing providers to have more time dedicated to one position to combat some of these issues, but still sees a need to hire more diverse providers on their team.

"The need is so high and trying to balance that access...there's not many of us…we need more people."

Team members also shared that the need for additional socioeconomic resources and social support for patients is high. When providing care to low resourced patients, the behavioral health team is cognizant of their inability to provide social support through Medicaid enrollment assistance, transportation, diapers, or safe sleep options. Even receiving funding to provide food during long group therapy sessions would be helpful, as one team member shared "assuming that everybody has adequate food resources to bring [their own] snacks [for a long therapy session] isn't necessarily fair."

There are also programmatic and systematic barriers the team faces, including limited space, limited reimbursements for behavioral health services, and stipends for those in leadership roles, and misunderstanding of WBHW offerings, which may be remedied by having processes in place that allow for transparency, collaboration, and problem-solving among the multiple organizations (e.g. CU Medicine, UCH, CUSOM) invested in WBHW.

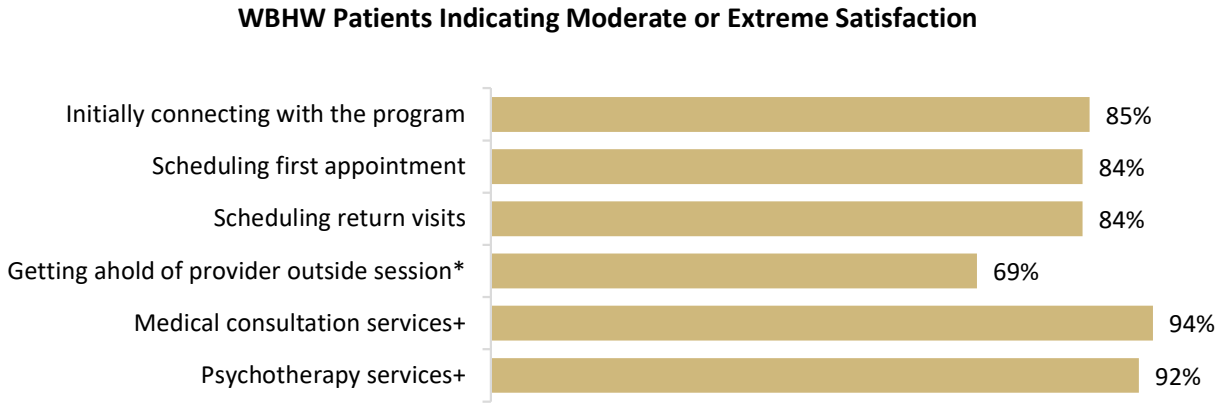
FEEDBACK FROM WBHW PATIENTS

Patient Survey Response Rate

The WBHW team sent a REDCap survey via *MyHealthConnection* to patients seen in the outpatient behavioral health clinic between April and December 2022, in spring 2023, and in December 2023. A total of 827 surveys were sent and 166 responses were received (20% response rate). One patient was excluded from analyses due to unanalyzable responses.

Satisfaction

Patients were asked if they would recommend WBHW to a friend, family member, or colleague. Nearly all respondents provided a response, with 89% of respondents indicating they were either moderately or extremely likely to recommend the program. Figure 4 shows patient satisfaction with ability to initially connect with the program scheduling their first and return appointments, contacting their provider outside of a session, and type of service received.



Note: *20% indicated N/A for this item; +Responses for these items received only from patients receiving medical consultation or psychotherapy services

Figure 4. *Patient satisfaction with WBHW*

Notable Successes and Recommendations for Improvement

When asked to describe the value they felt in the program, patients responded that they felt the services and WBHW staff were extremely helpful, invaluable, and even life changing. Patients felt the program provided them with stability as they were able to get needed medications and/or talk to staff who could help them navigate their behavioral health concerns. Staff were described as trustworthy and knowledgeable, creating an encouraging and positive environment from which patients could express concerns, seek assistance, and feel heard by their provider. Finally, many patients described the support groups with other patients/moms who have similar experiences as making "all the difference" in their care. While patients were largely positive in their responses, a few did have areas they felt the program could improve upon. A couple patients shared negative experiences while others felt there weren't enough resources for cancer patients specifically and wait times between appointments were difficult to navigate.

Patient Follow-up Interview Responses

Sixteen patients indicated in their surveys that they were willing to participate in follow-up interviews to expand upon their survey responses. All sixteen were outreached and four participated (25% response rate). These patients echoed the sentiments shared in the surveys. They shared that the access to specialized care within their existing health care environment made them feel supported, valued, and less isolated. One patient shared that WBHW had "quite literally been foundational parts... in keeping me alive and helping me feel supported and valued and like I can manage life. I don't know what I would be without them, what I would have done without them. I'd like to believe I would have gotten other help, but I feel very grateful to know them." Patients were also given the opportunity to offer suggestions for program improvement. Suggestions included improving the process to reschedule appointments, offering longer group therapy programs, increasing follow-up contact, expanding in-person reach to rural areas, and increasing awareness around WBHW services and offerings.