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Integrated Women's Behavioral Health: Recent Literature and Proposed Framework

Jennifer N. Crawford[1], Sherry H. Weitzen[2], and Jay Schulkin[3]
[1] Department of Psychiatry and Behavioral Sciences, University of New Mexico Health Sciences Center
[2] Department of Family and Community Medicine, University of New Mexico Health Sciences Center
[3] Department of Obstetrics and Gynecology, University of Washington

Expanding access to behavioral health (BH) care in integrated primary care settings has expanded the role of health services psychologists in medical settings. However, many women continue to seek care primarily from obstetrician-gynecologists (ob-gyns) and may not benefit from the expansion of integrated behavioral health (IBH). Ob-gyns and other women's health specialty providers are in a unique position to connect women with needed BH care, including for high priority concerns (e.g., opioid misuse, severe depression/suicidality, and untreated post-traumatic stress disorder). Research on collaborative care models within ob-gyn practice settings is limited and a clear framework for such integration is needed. Existing IBH programs in women's health settings are often limited to perinatal depression treatment, and underutilize the services of psychologists and other behavioral health providers (BHPs) to provide evidence-based treatments for post-traumatic stress disorder, chronic pain, sexual functioning, and health behavior change. A review of recent literature on BH integration in ob-gyn settings is provided and recommended key elements for future BH integration in women's health are outlined. Expanding availability of psychologists and other BHPs in women's health specialty settings (WHSS) has the potential to improve the health and well-being of many women.

Public Significance Statement
This paper reviews the limited research on behavioral health care in women's health specialty settings, like Obstetrics and Gynecology, and finds that when available it is most often focused on depression during and after pregnancy rather than the broad needs of women. The paper advocates for increasing access to behavioral health providers (e.g., psychologists) within women's health settings and provides evidence-based suggestions for doing so.

Keywords: integrated behavioral health, obstetrics-gynecology, perinatal mental health, mental health, women's health

Integrated behavioral health (IBH) models (e.g., collaborative care, behavioral health manager models) in primary care have increased access to and utilization of behavioral health (BH) services (Possemato et al., 2018). The success of primary care mental health integration relies on much of the population receiving routine care in primary care settings. However, many women

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Jennifer N. Crawford https://orcid.org/0000-0001-8349-455X

Jennifer N. Crawford completed her PhD in Clinical Psychology at the University of New Mexico before completing the Advanced Fellowship in Women's Health at the San Diego VA/UCSD. She is currently Assistant Professor in the Department of Psychiatry and Behavioral Sciences at the University of New Mexico. Her professional interests include sexual trauma, treatment of PTSD, clinical complexity in women's health, and expanding access to behavioral health care.

Sherry H. Weitzen received her MS in Biostatistics from the University of Massachusetts and a PhD in Epidemiology at Brown University before completing her MD at Tel Aviv University. She is currently Assistant Professor of Family and Community Medicine at the University of New Mexico School of Medicine. She has conducted numerous research studies in the areas of women's health, end of life, and epidemiologic methods. Her current research interests include neonatal abstinence syndrome (NAS) and long-term outcomes of children with intrauterine opiate exposure, as well as mentoring students, residents and others on use of publicly available health data.

Jay Schulkin completed his PhD in Behavioral Neuroscience at the University of Pennsylvania. He is currently Research Professor in the Department of Obstetrics and Gynecology at the University of Washington. His research interests include prenatal care among women with diabetes during pregnancy, neuroendocrinology, and behavioral endocrinology. He is the former Senior Director of Research at The American College of Obstetricians and Gynecologists and is currently the Project Director/Principal Investigator of the HRSA-funded Pregnancy-Related Care Research Network.

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Correspondence concerning this article should be addressed to Jennifer N. Crawford, Department of Psychiatry and Behavioral Sciences, University of New Mexico Health Sciences Center, MSC09 5030, 1 UNM, Albuquerque, NM 87131-0001, United States. Email: jcrawf@salud.unm.edu

continue to seek primary preventive care from their obstetrician-gynecologist (ob-gyn; Leader & Perales, 1995; Mazzoni et al., 2017), and therefore may be missing the benefits of increased IBH availability in primary care. Accordingly, ob-gyns are in a position to connect their patients with needed BH care, including for high priority concerns, for example, opioid misuse, severe depression and anxiety, suicide risk, and post-traumatic stress symptoms (PTSS).

The SAMHSA-HRSA Center for Integrated Health Solutions (CIHS) provides definitions and guidelines for different degrees of integration between mental health and primary care services. The three primary categories are coordinated care, co-located care, and integrated care, each with increasing levels of collaboration among providers to meet the BH needs of patients (Heath et al., 2013). In addition, CIHS provides guidelines for integration within patient-centered medical homes (PCMH; Steinberg, 2014). These guidelines emphasize patient-centered access, collaborative team-based care, population health management, care management and support, care coordination and care transitions, and performance measurement and quality improvement.

While the CIHS guidelines focus on IBH in primary care, we wish to convey in this article the potential benefit of interdisciplinary IBH in ob-gyn and non-primary care women's health specialty settings (WHSS; e.g., obstetrics and midwifery, gynecology, urogynecology, reproductive health); and further, the potential benefit of broad IBH that provides care beyond perinatal mood disorders. Integrating BH services into WHSS, using the success of such models in primary care as a guide, will improve access to BH and improve the health and well-being of those served in women's health settings. When referring to specialty women's health, we are referring to specialty care settings that often address the gynecological and obstetric needs of cis-gender women; however, we strongly believe transgender women, transgender men, and gender nonbinary individuals seeking care in those same specialty settings will benefit from IBH.

Need for IBH in Ob-Gyn Settings

Obstetrics-Gynecology as Primary Care Setting

Many women, especially those of reproductive age, prefer to access primary care through their ob-gyn (Hall et al., 2017; Henderson & Weisman, 2005; Leader & Perales, 1995), and many ob-gyns recognize their role as primary care providers to women (48%; Leader & Perales, 1995). In two recent large studies, 20%–22% of women identified their ob-gyn as their preferred primary care provider (PCP) (Hall et al., 2017; Mazzoni et al., 2017). The percentage nearly doubles among women with lower socioeconomic status: 38% of women in a Medicaid-enrolled sample identified an ob-gyn as their primary provider (Scholle & Kelleher, 2003). Ob-gyns self-identified as the primary care provider for 21.8% of their patients in 2010 (National Center for Health Statistics, 2010) and 13.4% in 2015 (Rui & Okeyode, 2015). However, ob-gyns are significantly less likely to cover the range of health concerns addressed in traditional primary care settings—including mental health (Cohen & Coco, 2014), suggesting that many BH needs in this patient population may go unaddressed. Therefore, ob-gyn settings represent an underutilized opportunity to address BH needs, especially among patients who do not have, or do not regularly utilize, a primary care provider.

Co-Morbidity and Clinical Complexity

Patients with generalist PCPs may still see an ob-gyn for concerns that would benefit from assessment and/or consultation from a behavioral health provider (BHP). Indeed, ob-gyn care intersects with BH in well-documented ways. For example, chronic pelvic pain, one of the most common referrals to gynecology, is influenced by psychosocial factors (e.g., sexual abuse history, depression, anxiety, drug and alcohol abuse; see review Latthe et al., 2006), and may be improved by interdisciplinary care that includes mental health treatment (Allaire et al., 2018). Sexual health concerns are often related to mental health conditions (e.g., depression), their related risk factors (e.g., childhood sexual trauma; Stephenson et al., 2014), and/or their medication management (e.g., Montejo et al., 2018). Other health risk factors such as obesity (e.g., Jacob et al., 2018), tobacco use (Wray et al., 2018), and sleep difficulties and disorders (Wu et al., 2015) can be addressed by BHPs. Integrating BH into WHSS would improve comprehensive care for a myriad of health concerns.

Additionally, BH concerns may add clinical complexity to issues addressed in ob-gyn practice. For example, untreated PTSS are linked to short-term and long-term mother and child well-being (Lang et al., 2010; Seng et al., 2013); and, when comorbid with depression, PTSS are linked to increased risk of preterm birth (Yonkers et al., 2014). One review found maternal history of childhood sexual abuse resulted in negative sequelae during and after pregnancy, including risky behaviors, reexperiencing symptoms during delivery, and avoidance of prenatal care (Leeners et al., 2006). Many conditions treated in WHSS require careful differential diagnosis based largely on mood-related symptoms (e.g., premenstrual dysphoric disorder, mood changes during perimenopause, anxiety during pregnancy, manic or hypomanic episodes). Substance use, especially opioid use, may complicate perinatal care, and may arise in chronic pelvic pain clinics as well. Eating disorders may affect clinical presentations in ob-gyn settings (e.g., amenorrhea due to anorexia; insufficient weight gain during pregnancy). Mental health symptoms can complicate gynecological conditions and increase risk of obstetric complications during pregnancy and/or birth—an integrated BHP would be able to collaboratively assess and help treat these complexities.

BH Screening

The American College of Obstetrics and Gynecology (ACOG) recommends screening for a range of BH symptoms and risk factors. Unfortunately, research repeatedly finds that training and time constraints are barriers to routine screening by ob-gyns (Leddy et al., 2011) for child sexual abuse history (Farrow et al., 2018), anxiety during pregnancy (Coleman et al., 2008), intimate partner violence (Horan et al., 1998), and elder abuse (Leddy et al., 2014). Consistently, the 2016 National Ambulatory Medical Care Survey (NAMCS) reports ob-gyns spend the lowest amount of time (19.1 average minutes) with patients compared with other specialties (Rui & Okeyode, 2016). The availability of an integrated BHP (e.g., for same-day warm-handoffs) may substantially improve screening rates (Lomonaco-Haycraft et al., 2018), increasing access to BH assessment and interventions. BHPs, such as clinical psychologists,

are trained in efficient assessment, differential diagnosis, treatment planning, and providing clarification and recommendations to augment care.

Given the BH needs of patients in ob-gyn and other WHSS, we argue that full integration of BH care in WHSS would improve the health and well-being of many patients. To illustrate the current use of IBH in ob-gyn settings and to identify clinical and research needs in this area, we briefly review recent literature focused on IBH programs in ob-gyn settings. We summarize peer-reviewed journal articles describing BH programs formally integrated into ob-gyn outpatient settings. Table 1 provides additional details about each study or program description.

Review of Recent Literature

Status of IBH in Ob-Gyn Settings

Overall, research on IBH in ob-gyn is largely limited to perinatal mood disorders, namely depression. We found one systematic review of integrated BH and ob-gyn services, itself reviewing six distinct programs (Coverdale et al., 2015). However, only one of those programs, Collaborative Depression Care (Katon et al., 2015), described BH care integrated directly into an ob-gyn clinic setting (rather than ob-gyn-provided family planning services integrated into BH and other medical settings). The program screened women awaiting ob-gyn appointments for depression and offered brief psychotherapy and/or medication treatment when indicated; it was especially helpful in treating depression among disadvantaged patients (i.e., no or public insurance; Katon et al., 2015). Social work care managers provided initial assessment, treatment planning, care coordination, and follow-up, with the help of a supervising psychologist and in consultation with psychiatry and the patient's ob-gyn. Since the Coverdale study (years: 2015–2019) we found one additional randomized clinical trial (RCT; Grote et al., 2017), and it also focused on the effectiveness of collaborative care interventions on perinatal depression among disadvantaged women. The study found that evidence-based treatment for depression, that is, interpersonal therapy (IPT), medication, or both, was more effective in mitigating postpartum depression, for women with co-occurring post-traumatic stress disorder (PTSD), than maternity support services alone (which screened and referred out for depression, but did not treat it). Another study based on the same RCT (Bhat et al., 2017) found that the intervention moderated the impact of adverse birth events and antepartum depression on risk for postpartum depression and impaired functioning. While we are not conducting a systematic review of the effectiveness these programs, with regard to the extent of collaborative care programs in ob-gyn settings, and research on such programs, it is important to note that many of the research studies we found are connected to one of two single RCTs, rather than multiple, distinct, collaborative care programs. For example, Katon et al. (2015) is a planned secondary analysis of an earlier RCT (Melville et al., 2014); and Grote et al. (2017) and Bhat et al. (2017) are follow-up studies based on a parent RCT (Grote et al., 2014, 2015). The parent study descriptions were used to inform Table 1.

Several additional programs were described in the literature. Cox et al. (2017) describe integration of psychiatric nurse practitioners (PNPs) into several obstetrics settings, wherein positive screens for depression at 6-week postpartum result in referral to the PNP for medication management and/or therapy. It is not clear if an evidence-supported therapy was utilized; the study only describes therapy as a free community-based support group for women started by the PNP. Lomonaco-Haycraft et al. (2018) describe the implementation of IBH across perinatal care clinics to treat perinatal mood disorders, with heavy reliance on licensed clinical social workers and licensed psychologists, consistent with calls for increased use of psychologists in ob-gyn settings (Poleshuck & Woods, 2014). Breaking from the focus on perinatal mood disorders, Cole et al. (2017), describe BH integration into a perinatal palliative care unit, including multiple layers of bereavement support for parents, families, and siblings, using a variety of BH providers: clinical psychologists, social workers, chaplain, and child life specialists (specific field of training not described).

In sum, research describing integrated BH programs in ob-gyn settings is limited in both volume and scope. Nearly all of the above studies or program descriptions focus on perinatal mood disorders, primarily depression. Missing is a comprehensive integration of BH care designed to address the broad mental health needs of patients seen in specialty women's health settings, as described in the introduction.

Integrated Women's Behavioral Health

Given the limited literature on IBH in ob-gyn settings, we propose several key elements for integration of behavioral health into WHSS, with the goal of informing future implementation and research in this area. While similar to, and drawing from, traditional IBH (Heath et al., 2013), several key differences may better meet the needs of women where they are, including: flexibility to provide both brief interventions (e.g., motivational support for health behavior change, brief depression and anxiety interventions, risk assessment and safety planning) and specialty BH treatment (e.g., full-course, time-limited, evidence-based psychotherapies) and broad integration within non-primary care specialty settings. We focus on non-primary care WHSS, in which we include obstetrics and midwifery, gynecology, uro-gynecology, fertility and reproductive health clinics, and other settings, including gender-affirming care settings for transgender and gender nonbinary individuals receiving care for gynecological and obstetric medical concerns. We also highlight the need for increased work force development and training in integrated women's behavioral health (IWBH), especially within the field of psychology (Figure 1).

Interdisciplinary Collaboration

Essential to IBH generally is a focus on interdisciplinary collaborative care (Heath et al., 2013). In the case of IWBH these providers should be, (a) from a variety of BH fields (e.g., medication and psychotherapy providers) and (b) trained in the cross-section of behavioral and physical health needs among women and those served in WHSS. While some WHSS settings may already have access to consulting psychiatrists or PNPs, hiring clinical social workers and psychologists with competence in delivering evidence-based psychotherapies (e.g., cognitive behavioral therapies, acceptance and commitment therapy, mindfulness-based treatments, IPT, etc.) would increase the comprehensiveness of available care. In settings without integrated psychiatric medication providers, clinical pharmacists may help increase same-clinic and same-day access to psychiatric medication management to the benefit of the patient.

Table 1
Summary of Recent Studies Focused on Integrated Behavioral Health in Ob-Gyn Settings

Authors	Program name and target population	Study design	Inclusion/exclusion (Inc./Exc.)	Medical condition	Behavioral health condition	Type of BHP	Intervention	Integration
Melville et al. (2014)	Depression attention for women now (DAWN) Women in ob-gyn clinics with major depression or dysthymia	RCT 2 sites: ob-gyn clinics DAWN (n = 102) TAU (n = 103) Baseline, 6, 12, 18 month follow-up	Inc.: PHQ9 > 9, and met criteria for MDD or dysthymia on MINI, English speaker, phone access, 18+ Exc.: homelessness, alcohol or drug misuse in past 3 months, high suicide risk, 1 prior suicide attempt, bipolar or schizophrenic disorders, current severe intimate partner violence, currently seeing psychiatrist	N/A	MDD, dysthymia PHQ-9 > 9, plus meet criteria on MINI	Depression care manager (DCM; social worker) Supervising psychologist Consulting psychiatrist and ob-gyn	DAWN: Initial engagement session, proactive outreach for missed sessions, choice of treatment (PST-PC or medication), telephone visits, social interventions to address barriers to care, depression educational materials, coaching to increase positive activities, revision of treatment plan by 4–8 weeks based on progress (stepped care) TAU: all received depression educational booklet; mild–moderate depression: encouraged to follow-up with ob-gyn; severe MDD: triaged for immediate care	Weekly team meetings with DCM, consulting psychiatrist, and consulting ob/gyn Shared electronic tracking system; communication with providers via electronic medical record Recommended medication changes communicated by DCM to prescribing ob-gyn provider
Grote et al. (2014, 2015, 2017) and Bhat et al. (2017)	MOMCare Pregnant public health patients	RCT Multisite, public health clinics MOMCare (n = 83) TAU: Maternity support services-plus (MSS-Plus) (n = 85) Baseline, 18 month follow-up (12 months postpartum)	Inc.: PHQ9 > 9, and met criteria for MDD or dysthymia on MINI, 12–32 weeks gestation, English speaker, phone access, 18+ Exc.: alcohol or drug misuse, acute suicidal behavior or 2+ prior suicide attempts, bipolar or schizophrenic disorders, current severe intimate partner violence, currently seeing psychiatrist or psychotherapist	N/A	MDD, dysthymia PHQ-9 > 9, plus meet criteria on MINI	Social workers In consultation with psychologist and psychiatrist Collaboration with ob-gyn provider	Experimental treatment was add-on to MSS-Plus Initial engagement session, choice of treatment (brief IPT and/or pharmacotherapy from ob-gyn provider), telephone and in-person visits, outreach for missed appointments, social workers as depression care managers to deliver treatment and case management	Collaborative care team met weekly: BHPs and project manager only

(*table continues*)

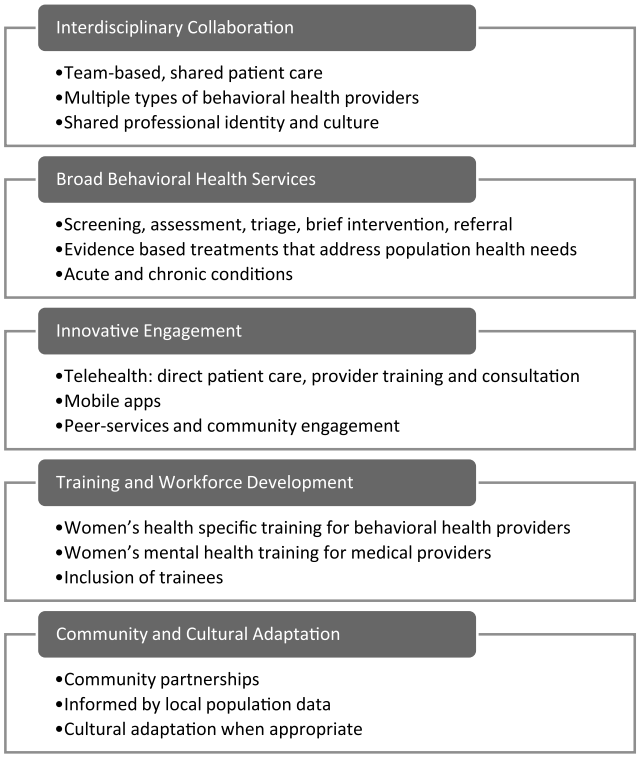
Table 1 (*continued*)

Authors	Program name and target population	Study design	Inclusion/exclusion (Inc./Exc.)	Medical condition	Behavioral health condition	Type of BHP	Intervention	Integration
Cox et al. (2017)	Obstetrics and gynecology clinics Women in ob-gyn clinics with perinatal mood changes	Description of integrated care model *Additional programs described briefly: e.g., inpatient perinatal depression clinic (not included here)*	N/A	N/A	Perinatal depression and anxiety	Psychiatric nurse practitioner (PNP)	Same-day referral following positive screen. Follow-ups for medication management. Community-based support group run by PNP	PNP appears fully embedded in ob-gyn clinics
Cole et al. (2017)	Perinatal palliative care and bereavement program Women and families with confirmed life-limiting fetal diagnosis	Proposed model, case study Children's hospital	N/A	Life-limiting fetal diagnosis	Bereavement	Clinical psychologist, social worker, chaplain, *child life specialist* (field not indicated) In collaboration with various maternal-fetal medicine providers	Palliative care consultation, birth planning (including exposure to written birth plan), sibling psychosocial support, parent psychosocial support, postmortem care Includes BHP for parents and siblings at each prenatal visit in hospital, and for follow-up	All care provided in one center based on needs of woman and family *Shared patient care implied in proposed model*
Lomonaco-Haycraft et al. (2018)	Integrated perinatal mental health Women with perinatal mood and anxiety disorders	Description of integrated care model Hospital and community health care system: inc. women's care, family medicine, and pediatric clinics that provide perinatal care	N/A	N/A	Perinatal depression and anxiety	Clinical psychologist, licensed clinical social worker Consulting psychiatrist In collaboration with various medical and nursing providers	Warm-handoffs in response to positive screens, brief follow-ups available, case management and referral coordination, brief psychotherapy, medication consultation	BHPs integrated into clinics and on interdisciplinary teams *Shared patient care implied by description of program*

Note. DAWN = depression attention for women now; ob-gyn = obstetrician-gynecologist; RCT = randomized clinical trial; TAU = treatment as usual; PHQ-9 = patient health questionnaire-9 item; MDD = major depressive disorder; MINI = mini-international neuropsychiatric interview; N/A = not applicable; DCM = depression care manager; PST-PC = problem solving treatment-primary care; MSS = maternity support services; PNP = psychiatric nurse practitioner; IPT = interpersonal psychotherapy; BHP = behavioral health provider.

Figure 1

Integrated Women's Behavioral Health Framework



For example, one study found that physicians greatly appreciated integrated clinical pharmacists' co-management of opioid tapers (Giannitrapani et al., 2018); this same assistance is likely to be welcome in urogynecology settings where chronic pelvic pain is often managed. Ultimately, as with IBH generally, IWBH teams should share a professional identity and culture—specifically, as members of a collaborative women's health care team.

Broad BH Services

Extending the availability of both brief interventions and full-course time-limited psychotherapies (e.g., Cognitive Processing Therapy for PTSD) will help reduce barriers to care for many women, especially those with limited resources (e.g., childcare, time off from work, transportation, etc.). While it may be beyond the current resources of a given clinic or health care system to offer longer term outpatient therapies (e.g., 12–20 sessions), considering the possibility is especially important when working with populations who may not seek care otherwise, perhaps due to access limitations or mental health stigma. At the very least, IWBH should provide the brief assessment, treatment planning, and motivation enhancement needed to bridge care to an outside BH referral or higher level of care. It may be administratively necessary to provide only a selection of specialty mental health services because of their prevalence in the WHSS: sexual health groups, postpartum depression and anxiety treatment, perinatal opioid medication-assisted treatment, chronic pelvic pain management, and PTSD treatment. Ideally, both acute and chronic BH concerns would be addressed in a comprehensive, flexible approach.

Innovative Engagement

Like IBH in primary care settings, the ideal format for IWBH would be in-person, team-based shared patient care, in shared facilities (Steinberg, 2014). However, increasing access to evidence-supported BH care for women will require use of innovative strategies to reach at-risk populations. Telehealth offers an opportunity to expand access and reduce barriers to engagement, especially for rural women, women with high-risk pregnancies (e.g., limited travel), overwhelmed new moms, and women with chronic illness. During the first year of the COVID-19 pandemic telemental health expanded rapidly, as regulations were relaxed to maintain services (Whaibeh et al., 2020); a study on perinatal patients' use of telemental health (i.e., for depression and anxiety treatment) during the pandemic found that 69% reported that virtual sessions increased their access to psychiatric care (Ackerman et al., 2021). Telehealth-based direct patient services and provider consultation would both be beneficial. For example, consultation to WHPs in rural areas could address training gaps and/or discomfort managing psychiatric medications during pregnancy or providing medication-assisted treatment for opioid misuse (as in primary care settings, Zheng et al., 2017). Future research might focus on the potential for mobile apps to deliver or supplement evidence-supported psychotherapies while being tailored for women's health concerns. Similarly, peer-support services may offer an opportunity to connect women with each other for community support and treatment engagement. A recent meta-analysis found peers may be helpful for addressing perinatal depression (Huang et al., 2020); however, the use of peers in broader WHSS is ripe for future investigation (e.g., in chronic pelvic pain care).

Training and Workforce Development

BHPs can provide training and consultation related to identification and treatment of mental health concerns to providers, nurses, case-workers, and other WHSS staff. For example, Raglan et al. (2019) note that ob-gyns need additional training in assessing and treating premenopausal depression, especially given the difficult differential diagnostic questions that arise during this period (i.e., depression vs. hormone-related mood changes). Moreover, a recent survey of ob-gyn residency directors (Garbarino et al., 2019) found that BH training is limited, with fewer than 50% of programs providing didactics about intimate partner violence (47%), nonobstetric depression (44%), and anxiety (43%); and only 30% offering didactics on medication management; 26% on eating disorder; and 11% on PTSD. BHPs may help bridge gaps in BH training by providing onsite consultation, supervision, and education to both providers and learners; clinical psychologists may be especially helpful in these types of teaching and consultation roles (Poleshuck & Woods, 2014).

Additionally, we recommend increased availability of training in WHSS for BH trainees. Specifically, we encourage expanded development of formal IWBH training tracks and experiences: predoctoral psychology internship rotations, postdoctoral women's health psychology fellowships (e.g., VA Advanced Fellowship in Women's Health; Tilstra et al., 2013), women's health social work internships that include psychotherapy training, access to women's health settings for clinical pharmacists, and continued increase of women's and reproductive health psychiatry fellowships in integrated settings.

Community and Cultural Adaptation

Serving ethnically, racially, and socio-economically diverse populations may require innovative implementation of IWBH that is community informed and culturally appropriate. However, Cooper et al. (2021) cite inconsistent, inappropriate, and ineffective implementation of evidence-based practices among different populations as a major contributor to disparities in healthcare delivery and access. In other words, adaptation is not enough if adapted evidence-based treatments are not implemented successfully (Cabassa & Baumann, 2013). Examination of local health disparities and needs along with efforts to contextualize that data with local culture and concerns (i.e., with use of community advisory boards, community-based participatory research) may make integration efforts more successful and sustainable (Baumann & Cabassa, 2020; Nguyen et al., 2021). Such "pre-implementation" efforts are also likely to contribute to a robust and effective referral network with community partners and agencies, as it likely not possible to manage all BH needs for all patients within an IWBH program.

Discussion

Potential Benefits

Increased point-of-care access to BH care in settings where women receive a great deal of their medical care increases population-level access to BH care—this would be a major benefit of IWBH. Likewise, underserved women are likely to benefit from IWBH, either through increased access in general and/or through improved patient care because of increased provider consultation and training (Grote et al., 2017). Another large benefit of IWBH would be expanded multidisciplinary medical education and training. IWBH would provide much needed cross-disciplinary training for ob-gyns, midwives, nurse practitioners, psychologists, clinical social workers, clinical pharmacists, and other WH and BHPs. Finally, while this paper has focused on integration within outpatient settings, the interdisciplinary consultation, training, assessment, and treatment capacity built by implementing IWBH is likely to benefit other areas of women's health care as well. Cox et al. (2017) describe expansion of collaborative care to other women's health programs (e.g., lactation consultation, inpatient perinatal unit, pediatric well baby programs). Building a comprehensive IWBH program that includes a multi-disciplinary team is key to creating PCMHs that meet the comprehensive needs of women.

Limitations

Our suggestions for IWBH are broad and reflect recommendations based on traditional IBH and the relatively limited existing research on IBH in ob-gyn settings; they are subject to revision and improvement in response to future research, especially implementation science research, which is greatly needed. We have purposely focused on IBH in WHSS, drawing a distinction between these practice settings and general primary care. This may not be a distinction born out in all communities, agencies, or institutions. However, our IWBH framework may provide guidance for primary care practices that provide a significant amount of women's health care (e.g., in rural areas), by encouraging increased inclusion of psychotherapy providers, increased interdisciplinary BH-related training, and increased recognition of BH needs of among women with gynecological and obstetric concerns.

Future Research

An IWBH setting may provide unique opportunity for expanded implementation and adaptation of evidence-supported BH treatments and related clinical and health services research. For example, research on the efficacy of PTSD treatment (e.g., cognitive processing therapy, prolonged exposure) among pregnant and recently post-partum women or adaptation of cognitive behavioral therapy for chronic pelvic pain syndromes is needed.

Research should clarify current availability of BHPs in women's health settings, the openness of WHPs to utilize BHPs, and the perceived value of IBH to women's health specialty patients. Results from our own survey on IBH utilization in ob-gyn settings are forthcoming, and will likely inform development of educational resources to help clinics and institutions view IWBH as a worthwhile contributor to comprehensive women's health care. The first author is currently conducting a pilot study using electronic medical record data to identify the BH needs of women seen in WHSS in a national sample. Both these studies will help clarify the extent of BH needs among women seen in women's specialty health settings; and the extent to which WH providers and their patients may benefit from access to IBH.

Research should also focus on identifying barriers and facilitators of successful implementation of IWBH. In particular, the clinical and pragmatic utility of integrating traditional triage and brief intervention alongside longer evidence-supported psychotherapies should be examined. It may be that increased access to BH care increases engagement in and completion of evidence-supported treatments; or, that women simply prefer to be seen in the community or other mental health settings. Additionally, billing difficulties and staffing shortages (i.e., sustainability) in WHSS may serve as barriers to adoption or sustainability of IWBH, and should be studied, for example, during pragmatic implementation trials. Finally, implementation strategies, such as Leadership and Organizational Change for Implementation (LOCI; Aarons et al., 2015) may prove helpful in creating the institutional motivation to implement best practices, like IBH, in novel settings.

Implications for Policy

Healthcare institutions could support increased access to BH for women throughout adulthood by supporting implementation of IWBH. This may require hiring BHPs, billing and coding restructuring, or related policy work both within and outside of the institution (e.g., with insurance providers, Medicaid; Lomonaco-Haycraft et al., 2018). Additionally, establishment of interdisciplinary IWBH requires support from healthcare leaders to implement best practices (e.g., shared facility space, staff, and resources). In some settings (e.g., academic medical centers), this may also require dedication to innovative interdepartmental collaboration (e.g., Psychiatry and Obstetrics/Gynecology).

Clinical psychology training programs should assess availability of women's health specialty training and consider development of women's health internship tracks and postdoctoral fellowships. The VA (along with its academic affiliates) has a well-established women's health fellowship program for both physicians and psychologists at several sites around the U.S. and may provide a model for others in non-VA settings (Tilstra et al., 2013). Similarly, clinical social work and clinical pharmacy programs should increase

access to women's health specific training opportunities; this may require policy change at the institution or state level, including adjustment of supervision requirements (e.g., interdisciplinary supervision).

Conclusion

As healthcare in the U.S. continues shifting toward PCMH and IBH care, IWBH offers an opportunity to ensure patients who seek care primarily or solely in WHSS receive full access to BH care. Many of the existing IBH programs in WHSS are designed to address singular issues—most commonly perinatal depression as found in the current review. The IWBH framework advocated for in this paper is an effort to encourage broader integration of BH into women's health care, especially by psychologists and other evidence-based psychotherapy providers. Expansion of IWBH would also provide increased opportunity for research focused on the health and well-being of women. Minority, lower-income, and younger women are especially likely to benefit from such increased access and research.

References

Aarons, G. A., Ehrhart, M. G., Farahnak, L. R., & Hurlburt, M. S. (2015). Leadership and organizational change for implementation (LOCI): A randomized mixed method pilot study of a leadership and organization development intervention for evidence-based practice implementation. *Implementation Science*, *10*, Article 11. https://doi.org/10.1186/s13012-014-0192-y

Ackerman, M., Greenwald, E., Noulas, P., & Ahn, C. (2021). Patient satisfaction with and use of telemental health services in the perinatal period: A survey study. *Psychiatric Quarterly*. Advance online publication. https://doi.org/10.1007/s11126-020-09874-8

Allaire, C., Williams, C., Bodmer-Roy, S., Zhu, S., Arion, K., Ambacher, K., Wu, J., Yosef, A., Wong, F., Noga, H., Britnell, S., Yager, H., Bedaiwy, M. A., Albert, A. Y., Lisonkova, S., & Yong, P. J. (2018). Chronic pelvic pain in an interdisciplinary setting: 1-year prospective cohort. *American Journal of Obstetrics and Gynecology*, *218*(1), 114.e1–114.e12. https://doi.org/10.1016/j.ajog.2017.10.002

Baumann, A. A., & Cabassa, L. J. (2020). Reframing implementation science to address inequities in healthcare delivery. *BMC Health Services Research*, *20*, Article 190. https://doi.org/10.1186/s12913-020-4975-3

Bhat, A., Grote, N. K., Russo, J., Lohr, M. J., Jung, H., Rouse, C. E., Howell, E. C., Melville, J. L., Carson, K., & Katon, W. (2017). Collaborative care for perinatal depression among socioeconomically disadvantaged women: Adverse neonatal birth events and treatment response. *Psychiatric Services*, *68*(1), 17–24. https://doi.org/10.1176/appi.ps.201600002

Cabassa, L. J., & Baumann, A. A. (2013). A two-way street: Bridging implementation science and cultural adaptations of mental health treatments. *Implementation Science*, *8*, Article 90. https://doi.org/10.1186/1748-5908-8-90

Cohen, D., & Coco, A. (2014). Do physicians address other medical problems during preventive gynecologic visits? *Journal of the American Board of Family Medicine*, *27*(1), 13–18. https://doi.org/10.3122/jabfm.2014.01.130045

Cole, J. C. M., Moldenhauer, J. S., Jones, T. R., Shaughnessy, E. A., Zarrin, H. E., Coursey, A. L., & Munson, D. A. (2017). A proposed model for perinatal palliative care. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *46*(6), 904–911. https://doi.org/10.1016/j.jogn.2017.01.014

Coleman, V. H., Carter, M. M., Morgan, M. A., & Schulkin, J. (2008). Obstetrician-gynecologists' screening patterns for anxiety during pregnancy. *Depression and Anxiety*, *25*(2), 114–123. https://doi.org/10.1002/da.20278

Cooper, L. A., Purnell, T. S., Engelgau, M., Weeks, K., & Marsteller, J. A. (2021). Using implementation science to move from knowledge of disparities to achievement of equity. In I. Dankwa-Mullan, E. J. Perez-Stable, K. L. Gardner, X. Zhang, A. M. Rosario (Eds.), *The science of health disparities research* (pp. 289–308). Wiley. https://doi.org/10.1002/9781119374855.ch17

Coverdale, J., Roberts, L. W., Balon, R., & Beresin, E. V. (2015). Pedagogical implications of partnerships between psychiatry and obstetrics-gynecology in caring for patients with major mental disorders. *Academic Psychiatry*, *39*, 430–436. https://doi.org/10.1007/s40596-015-0364-3

Cox, E. Q., Raines, C., Kimmel, M., Richardson, E., Stuebe, A., & Meltzer-Brody, S. (2017). Comprehensive integrated care model to improve maternal mental health. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *46*(6), 923–930. https://doi.org/10.1016/j.jogn.2017.08.003

Farrow, V. A., Bosch, J., Crawford, J. N., Snead, C., & Schulkin, J. (2018). Screening for history of childhood abuse: beliefs, practice patterns, and barriers among obstetrician-gynecologists. *Womens Health Issues*, *28*(6), 559–568. https://doi.org/10.1016/j.whi.2018.09.001

Garbarino, A. H., Kohn, J. R., Coverdale, J. H., & Kilpatrick, C. C. (2019). Current trends in psychiatric education among obstetrics and gynecology residency programs. *Academic Psychiatry*, *43*, 294–299. https://doi.org/10.1007/s40596-019-01018-w

Giannitrapani, K. F., Glassman, P. A., Vang, D., McKelvey, J. C., Thomas Day, R., Dobscha, S. K., & Lorenz, K. A. (2018). Expanding the role of clinical pharmacists on interdisciplinary primary care teams for chronic pain and opioid management. *BMC Family Practice*, *19*, Article 107. https://doi.org/10.1186/s12875-018-0783-9

Grote, N. K., Katon, W. J., Lohr, M. J., Carson, K., Curran, M., Galvin, E., Russo, J. E., & Gregory, M. (2014). Culturally relevant treatment services for perinatal depression in socio-economically disadvantaged women: The design of the MOMCare study. *Contemporary Clinical Trials*, *39*(1), 34–49. https://doi.org/10.1016/j.cct.2014.07.001

Grote, N. K., Katon, W. J., Russo, J. E., Lohr, M. J., Curran, M., Galvin, E., & Carson, K. (2015). Collaborative care for perinatal depression in socioeconomically disadvantaged women: A randomized trial. *Depression and Anxiety*, *32*(11), 821–834. https://doi.org/10.1002/da.22405

Grote, N. K., Simon, G. E., Russo, J., Lohr, M. J., Carson, K., & Katon, W. (2017). Incremental benefit-cost of momcare: Collaborative care for perinatal depression among economically disadvantaged women. *Psychiatric Services*, *68*(11), 1164–1171. https://doi.org/10.1176/appi.ps.201600411

Hall, K. S., Harris, L. H., & Dalton, V. K. (2017). Women's preferred sources for primary and mental health care: Implications for reproductive health providers. *Women's Health Issues*, *27*(2), 196–205. https://doi.org/10.1016/j.whi.2016.09.014

Heath, B., Wise Romero, P., & Reynolds, K. (2013). *A review and proposed standard framework for levels of integrated healthcare*. SAMHSA-HRSA Center for Integrated Health Solutions. www.integration.samhsa.gov

Henderson, J. T., & Weisman, C. S. (2005). Women's patterns of provider use across the lifespan and satisfaction with primary care coordination and comprehensiveness. *Medical Care*, *43*(8), 826–833. https://doi.org/10.1097/01.mlr.0000170422.73033.eb

Horan, D. L., Chapin, J., Klein, L., Schmidt, L. A., & Schulkin, J. (1998). Domestic violence screening practices of obstetrician-gynecologists. *Obstetrics and Gynecology*, *92*(5), 785–789. https://doi.org/10.1016/S0029-7844(98)00247-6

Huang, R., Yan, C., Tian, Y., Lei, B., Yang, D., Liu, D., & Lei, J. (2020). Effectiveness of peer support intervention on perinatal depression: A systematic review and meta-analysis. *Journal of Affective Disorders*, *276*, 788–796. https://doi.org/10.1016/j.jad.2020.06.048

Jacob, A., Moullec, G., Lavoie, K. L., Laurin, C., Cowan, T., Tisshaw, C., Kazazian, C., Raddatz, C., & Bacon, S. L. (2018). Impact of cognitive-behavioral interventions on weight loss and psychological outcomes: A meta-analysis. *Health Psychology*, *37*(5), 417–432. https://doi.org/10.1037/hea0000576

Katon, W., Russo, J., Reed, S. D., Croicu, C. A., Ludman, E., LaRocco, A., & Melville, J. L. (2015). A randomized trial of collaborative depression care in obstetrics and gynecology clinics: Socioeconomic disadvantage and treatment response. *The American Journal of Psychiatry*, *172*(1), 32–40. https://doi.org/10.1176/appi.ajp.2014.14020258

Lang, A. J., Gartstein, M. A., Rodgers, C. S., & Lebeck, M. M. (2010). The impact of maternal childhood abuse on parenting and infant temperament. *Journal of Child and Adolescent Psychiatric Nursing*, *23*(2), 100–110. https://doi.org/10.1111/j.1744-6171.2010.00229.x

Latthe, P., Mignini, L., Gray, R., Hills, R., & Khan, K. (2006). Factors predisposing women to chronic pelvic pain: Systematic review. *BMJ*, *332*(7544), 749–755. https://doi.org/10.1136/bmj.38748.697465.55

Leader, S., & Perales, P. J. (1995). Provision of primary-preventive health care services by obstetrician-gynecologists. *Obstetrics and Gynecology*, *85*(3), 391–395. https://doi.org/10.1016/0029-7844(94)00411-6

Leddy, M. A., Farrow, V. A., & Schulkin, J. (2014). Obstetrician-gynecologists' knowledge, attitudes, and practice regarding elder abuse screening. *Women's Health Issues*, *24*(4), e455–e464. https://doi.org/10.1016/j.whi.2014.04.006

Leddy, M. A., Lawrence, H., & Schulkin, J. (2011). Obstetrician-gynecologists and women's mental health: Findings of the Collaborative Ambulatory Research Network 2005–2009. *Obstetrical & Gynecological Survey*, *66*(5), 316–323. https://doi.org/10.1097/OGX.0b013e31822785ee

Leeners, B., Richter-Appelt, H., Imthurn, B., & Rath, W. (2006). Influence of childhood sexual abuse on pregnancy, delivery, and the early postpartum period in adult women. *Journal of Psychosomatic Research*, *61*(2), 139–151. https://doi.org/10.1016/j.jpsychores.2005.11.006

Lomonaco-Haycraft, K. C., Hyer, J., Tibbits, B., Grote, J., Stainback-Tracy, K., Ulrickson, C., Lieberman, A., van Bekkum, L., & Hoffman, M. C. (2018). Integrated perinatal mental health care: A national model of perinatal primary care in vulnerable populations. *Primary Health Care Research and Development*, *20*, Article e77. https://doi.org/10.1017/S1463423618000348

Mazzoni, S., Brewer, S., Durfee, J., Pyrzanowski, J., Barnard, J., Dempsey, A. F., & O'Leary, S. T. (2017). Patient perspectives of obstetrician-gynecologists as primary care providers. *The Journal of Reproductive Medicine*, *62*(1–2), 3–8. https://www.reproductivemedicine.com/toc/auto_article_process.php?year=2017&page=3&id=24490&sn=0

Melville, J. L., Reed, S. D., Russo, J., Croicu, C. A., Ludman, E., LaRocco-Cockburn, A., & Katon, W. (2014). Improving care for depression in obstetrics and gynecology: A randomized controlled trial. *Obstetrics and Gynecology*, *123*(6), 1237–1246. https://doi.org/10.1097/AOG.0000000000000231

Montejo, A. L., Montejo, L., & Baldwin, D. S. (2018). The impact of severe mental disorders and psychotropic medications on sexual health and its implications for clinical management. *World Psychiatry*, *17*(1), 3–11. https://doi.org/10.1002/wps.20509

National Center for Health Statistics. (2010). *National hospital ambulatory medical care survey: 2010 summary tables*. http://www.census.gov/population/metro/

Nguyen, T. T., Wallerstein, N., Das, R., Sabado-Liwag, M. D., Jernigan, V. B. B., Jacob, T., Cannady, T., Martinez, L. S., Ndulue, U. J., Ortiz, A., Stubbs, A. W., Pichon, L. C., Tanjasiri, S. P., Pang, J., & Woo, K. (2021). Conducting community-based participatory research with minority communities to reduce health disparities. In I. Dankwa-Mullan, E. J. Perez-Stable, , K. L. Gardner, X. Zhang, A. M. Rosario (Eds.), *The science of health disparities research* (pp. 171–186). Wiley. https://doi.org/10.1002/9781119374855.ch11

Poleshuck, E. L., & Woods, J. (2014). Psychologists partnering with obstetricians and gynecologists: Meeting the need for patient-centered models of women's health care delivery. *American Psychologist*, *69*(4), 344–354. https://doi.org/10.1037/a0036044

Possemato, K., Johnson, E. M., Beehler, G. P., Shepardson, R. L., King, P., Vair, C. L., Funderburk, J. S., Maisto, S. A., & Wray, L. O. (2018). Patient outcomes associated with primary care behavioral health services: A systematic review. *General Hospital Psychiatry*, *53*, 1–11. https://doi.org/10.1016/j.genhosppsych.2018.04.002

Raglan, G. B., Schulkin, J., & Micks, E. (2019). Depression during perimenopause: The role of the obstetrician-gynecologist. *Archives of Women's Mental Health*, *23*, 1–10. https://doi.org/10.1007/s00737-019-0950-6

Rui, P., & Okeyode, T. (2015). *National ambulatory medical care survey: 2015 state and national summary tables*. http://www.cdc.gov/nchs/ahcd/ahcd_products.htm

Rui, P., & Okeyode, T. (2016). *National ambulatory medical care survey: 2016 national summary tables*. https://www.cdc.gov/nchs/data/ahcd/namcs_summary/2016_namcs_web_tables.pdf

Scholle, S. H., & Kelleher, K. (2003). Assessing primary care performance in an obstetrics/gynecology clinic. *Women & Health*, *37*(1), 15–30. https://doi.org/10.1300/J013v37n01_02

Seng, J. S., Sperlich, M., Low, L. K., Ronis, D. L., Muzik, M., & Liberzon, I. (2013). Childhood abuse history, posttraumatic stress disorder, postpartum mental health, and bonding: A prospective cohort study. *Journal of Midwifery & Women's Health*, *58*(1), 57–68. https://doi.org/10.1111/j.1542-2011.2012.00237.x

Steinberg J. (2014). *Advancing behavioral health integration within NCQA recognized patient-centered medical homes* [White paper]. Commonwealth Medicine Publications. https://escholarship.umassmed.edu/commed_pubs/103

Stephenson, K. R., Pulverman, C. S., & Meston, C. M. (2014). Assessing the association between childhood sexual abuse and adult sexual experiences in women with sexual difficulties. *Journal of Traumatic Stress*, *27*(3), 274–282. https://doi.org/10.1002/jts.21923

Tilstra, S. A., Kraemer, K. L., Rubio, D. M., & McNeil, M. A. (2013). Evaluation of VA Women's Health Fellowships: Developing leaders in academic women's health. *Journal of General Internal Medicine*, *28*(7), 901–907. https://doi.org/10.1007/s11606-012-2306-z

Whaibeh, E., Mahmoud, H., & Naal, H. (2020). Telemental health in the context of a pandemic: The COVID-19 experience. *Current Treatment Options in Psychiatry*, *7*, 1–5. https://doi.org/10.1007/s40501-020-00210-2

Wray, J. M., Funderburk, J. S., Acker, J. D., Wray, L. O., Maisto, S. A., & Johnson, R. H. (2018). A meta-analysis of brief tobacco interventions for use in integrated primary care. *Nicotine & Tobacco Research: Official Journal of the Society for Research on Nicotine and Tobacco*, *20*(12), 1418–1426. https://doi.org/10.1093/ntr/ntx212

Wu, J. Q., Appleman, E. R., Salazar, R. D., & Ong, J. C. (2015). Cognitive behavioral therapy for insomnia comorbid with psychiatric and medical conditions a meta-analysis. *JAMA Internal Medicine*, *175*(9), 1461–1472. https://doi.org/10.1001/jamainternmed.2015.3006

Yonkers, K. A., Smith, M. V., Forray, A., Epperson, C. N., Costello, D., Lin, H., & Belanger, K. (2014). Pregnant women with posttraumatic stress disorder and risk of preterm birth. *JAMA Psychiatry*, *71*(8), 897–904. https://doi.org/10.1001/jamapsychiatry.2014.558

Zheng, W., Nickasch, M., Lander, L., Wen, S., Xiao, M., Marshalek, P., Dix, E., & Sullivan, C. (2017). Treatment outcome comparison between telepsychiatry and face-to-face buprenorphine medication-assisted treatment for opioid use disorder: A 2-year retrospective data analysis. *Journal of Addiction Medicine*, *11*(2), 138–144. https://doi.org/10.1097/ADM.0000000000000287

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