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Why prevention is the future of maternal mental health

Our reactive approach to the maternal mental health care crisis isn't working

Introduction

You know what they say, “You can’t keep doing the same thing over and over again and expecting different results.” But that’s sort of what it’s been like for the model of care for maternal mental health. Over and over again we try to solve the maternal mental health crisis through reactive initiatives that treat perinatal mood and anxiety disorders rather than prevent them in the first place...or that address them when they are just starting to surface so you can prevent them from escalating.

But where has that gotten us?

With mental health disorders like anxiety and depression still being the **most common complication in pregnancy and postpartum** — a prevalence of **1 in 7** in the general population[1] but upwards of nearly **1 in 3** pregnant and postpartum adolescents, women veterans, and women of socioeconomically disadvantaged status[2]— one could argue that this reactive approach has gotten us ... well, nowhere.

While we’re hopeful to see that new policy changes like expanded Medicaid coverage through the whole first year better support a new mom’s well-being, this solution does not address what the research shows to be an essential key to closing the mental health care gap—prevention.[3]

Why prevention?

Prevention is not only important for reducing the health burden on mothers, babies, and families, it has massive implications beyond the home.[4] Untreated mental health conditions account for an additional $18 billion (over $32,000 per birthing person) in downstream healthcare costs fronted by insurance carriers, hospital systems, and the government.[5]

Investing in low-cost, high-impact mental health prevention interventions, therefore, is essential in reducing the negative impacts on maternal and child health—and reducing economic strain on our health system.

To make prevention most effective and universal to all expecting and new mothers everywhere, these initiatives need to address maternal mental health from a few different, but complementary, angles.

$18b **in additional downstream healthcare costs resulting from untreated mental health conditions**

Screening as prevention

Screening tools often elicit inaccurate questionnaire responses

32% of patients underreport their anxious and depressive symptoms on their in-office screening questionnaires, leading to underdiagnoses and therefore inadequate early intervention and treatment.[6] This withholding often stems from not wanting to be flagged for a mood disorder because of stigma, shame, or even fear of having their children taken from them by child welfare services.[7]

Sometimes, the barrier is the mothers' lack of trust in her healthcare provider or system due to past experiences in which she has felt judged or unsupported. Unfortunately, these patients are often those of racially diverse backgrounds and most at-risk for developing a perinatal mood disorder.

Screening tools do not capture and account for mental health risk factors and social determinants of health.

Research shows that patients with certain risk factors are more likely to develop a perinatal mood disorder. Given that our current clinically-validated screening tools are generalized mental health assessments that are taken in isolation of these other factors, they only tell part of the patient's story. They only capture a snapshot of the patient's current mood state rather than the likelihood of developing a mood disorder in the future.

Without capturing details of a patient such as their history of depression and anxiety, history of sexual abuse, low socioeconomic status, lack of financial or social support, military status, and adolescent parenthood, we lack the ability to systematically identify at-risk patients early on and intervene with education and support to prevent them from escalating into more severe symptoms.[8]

More productive perinatal mood and anxiety assessment tools could capture a comprehensive image of the patient's mood in the context of their whole lived experience, giving a more holistic assessment of current and potential future mental health risks.

Screening tools are non-inclusive of racially-diverse experiences.

Existing validated screening tools fail to capture the nuance of language and symptoms that are inclusive of ethnically and racially diverse depressive and anxious experiences. According to a 2019 study, Black people and other minorities with mood disorders present differently than their Caucasian counterparts and these differences tend not be appreciated in the existing screening tools.[9]

Dr. Breland-Noble, who conducts research on health disparities in mental health screening, diagnosis, and treatment, in a 2019 NPR interview said black women are more likely to describe low mood not as depression but as not feeling like themselves as well as experience more physical symptoms, like stomach aches and migraines when depressed, but our current screening tools neglect physical symptoms as mental health symptoms.[10]

Furthermore, one study suggested a revised, lower cutoff score for screening tools to more accurately identify depression among urban, low-income mothers.[11]

Screening tools fail to offer consistent and sufficient provider financial incentive.

While clinicians intend to do the best for their patients, it's not uncommon for clinical decisions and behaviors to be informed by health reimbursement arrangements. Unfortunately, while there are some state-wide mandates for perinatal mental health screening, such as California Assembly Bill 2193, there is no nationally-stipulated financial incentive for prenatal providers like obstetricians and midwives to perform prenatal mental health screening resulting in inconsistent prenatal mental health screening.[12] Most state Medicaid agencies do reimburse maternal depression screenings that are conducted by pediatrician offices at well-child visits.

This can help mothers receive mental health screening postpartum, however, it neglects screening during pregnancy and the opportunities for prevention, early-intervention, and as discussed below, provider-guided mental health education and awareness.

While we have sought to overcome many of the current screening protocol shortcomings through our Canopie screening process that combines the EPDS, GAD-2, questions assessing social determinants of health and mental health risk factors, we know that opportunities remain to make an even more effective screening protocol.

That's why we are excited about the 2022 Screening Project being conducted by the Maternal Mental Health Leadership Alliance (MMHLA) and March of Dimes.[13] In this project, they will synthesize existing screening guidelines from a variety of organizations into a cohesive approach to educate and screen pregnant and postpartum people during pregnancy through one full year postpartum. We are hopeful that these findings will create more consistency and universality in the screening standard of care.

Prevention and early intervention that is truly comprehenseive and effective goes beyond screening.

While screening is an essential piece of the prevention puzzle, it is only one piece. Prevention and early intervention that is truly comprehensive and effective goes beyond screening—and includes more integrated prenatal education.

Integrated prenatal mental health education & awareness

During the 40 weeks of pregnancy, there is so much for a woman to learn about her changing body, baby, and family dynamic. From how to optimize her nutrition for healthy baby development, to how to prepare for childbirth, to how to set up a safe sleep environment for baby when they arrive home. During this time, there is significant opportunity to gain awareness about the health risks and complications associated with pregnancy and postpartum.

The most opportune time, of course, is during the prenatal visits. There are on average 12 prenatal visits with a health care provider to assess the status of the baby's well-being. Theoretically, there is ample time for educating and counseling a patient on her own health, including her emotional and mental health well-being, no matter whether a patient is identified as at-risk.

If a provider does administer a screen during any of these prenatal visits, there is opportunity to give context to the screening process; they can discuss why screening is important, the risk of developing a perinatal mood and anxiety disorder, things to do for prevention, and what symptoms to look out for.

> "When screening, it is an opportunity to normalize mental health given the higher risk and impact as a complication of birth. Once educated, birthing people and their partners can know what questions to ask, who to talk to, etc. which can lead to early prevention or early treatment, if affected."
>
> Dr. Alinne Barrera, PhD 

Unfortunately, while there seems to be ample opportunity for bringing up mental health over the course of a pregnancy, it is often deprioritized when it comes to monitoring the baby's health and talking about birth plans, especially when overburdened OBs may only get 15 minutes with a patient.

More perinatal health education does not just include the education targeted towards moms. It includes more education for clinicians (OBs, midwives, and pediatricians), providers, birthworkers, and childbirth educators so that they are more equipped to compassionately advise and support all their peripartum patients and clients, regardless of screen or risk, as well as identify those who are at-risk or may be showing early signs and symptoms of struggling.

And while each of these providers has their scope of practice focused on one part of the peripartum journey, it is essential that they are able to refer their patients to effective mental health resources. More provider engagement, especially that of clinicians, has an additional upside of building trust so that the patient feels safer to share her worries, concerns, and fears. Dr. Alinne Barerra suggests that the interaction can be short, but impactful. **"Simply asking, 'How are you feeling emotionally?" takes 2 seconds but goes a long way to invite patients to open up about her struggles so that she can get the care she needs sooner, not later."**

Bringing perinatal mental health curricula into childbirth education

One way that health systems or payers can more easily layer in mental health education without burdening clinical staff is including a perinatal mental health curricula as part of their childbirth education offerings.

Many parents, especially first-time parents, participate in these classes so it is an opportunity to bundle a more approachable subject matter like childbirth with more stigmatized mental health to make it more accessible.

There are two added benefits of including mental health education in childbirth education curriculums.

1. **Childbirth education courses are often attended by partners,** lending an opportunity for the partners to learn about these mental health complications, play a role in helping to identify low mood in their mother partners, and support them through their challenges.[14]
2. **Bonds with attendees facilitate new social support systems.** Many parents become friendly with other attendees of their childbirth education courses as their due dates are often close together, facilitating a new social support system that mothers can rely on postpartum, which can help mitigate the onset of perinatal mood disorders.[15]

Establishing separate prenatal mental health programs

Alternatively, structured prenatal programs focused specifically on mental health and building emotional resilience—and delivered separately from childbirth education courses— can be an impactful way to educate mothers early.

The Mothers and Babies program and Reach Out, Stand Strong, Essentials for New Mothers (ROSE) program are two group programs that are based on clinically-effective therapeutic techniques, cognitive behavioral and interpersonal therapy respectively, and recommended by the United States Preventative Services Task Force (USPSTF). These targeted multi-session educational programs allow expecting mothers to not only learn skills for coping, communicating, and bonding alongside an expert but practice and refine them in a safe setting.

While programs like the Mothers and Babies Course and ROSE are making tremendous strides in truly intentional mental health education, there are still opportunities for more accessible and convenient avenues for perinatal mental health education.

22%
of US women receive inadequate prenatal care

40%
of women do not attend a postpartum visit

The unfortunate truth is that upwards of 22% of U.S. women, the majority being those more at risk for developing a perinatal mood disorder due to social determinants of health, receive inadequate prenatal care.[16] And upwards of 40% of women do not attend a postpartum visit.[17] These can be for any number of reasons including financial limitations, negative perceptions of health care providers, ambivalence about pregnancy, financial limitations, logistical access to appointments.[18, 19]

Underutilization of prenatal and postpartum care reduces the opportunity for mental health education (and screening) that can prevent the arousal or escalation of postpartum depression and anxiety, as well as increases the risk of other maternal-child health complications.

Therefore as we think about effective educational pathways for maternal mental health prevention, it is essential that we think of creating more universally available, convenient, and affordable care that overcomes these barriers.

And this is where digital behavioral health tools—like Canopie—come in.

Digital health interventions

In 2018, the United States Preventative Services Task Force (USPSTF), in addition to calling for universal screening, found evidence that counseling interventions, such as cognitive behavioral therapy and interpersonal therapy, are effective in preventing perinatal depression in women at increased risk.

While their statement validates specific therapeutic techniques as effective tools in preventing perinatal mood disorders, it can fall short in its practical implementation if only traditional 1:1 talk therapy is considered as the mode of delivery.

The fact is that there are unique challenges of traditional 1:1 therapeutic interventions when it comes to perinatal care which can limit its effectiveness in a prevention model.

- **Expecting and new mothers are connected with a provider only if "flagged" during a screen.**

  The current care protocol often hinges on a screening tool being administered and cutoff score being met before a therapist referral is even made. But given the limitations of the current screening tools and protocols as mentioned above, there are many opportunities for high-risk patients to fall through the care cracks and not access the 1:1 therapeutic interventions altogether.

- **There is limited mental health provider availability.**

  There is already a shortage of therapists in 77% of the counties in the United States, but when you niche down further into perinatal mental health providers who are equipped to support expecting and new mothers with their unique challenges, the shortage is even more massive.[20]

  For those of ethnically-diverse backgrounds, the language and cultural competency barriers are themselves other hurdles to clear.[21] And even if a mother does get an appointment with a therapist who speaks her language, there is always the chance that they are not a compatible therapist-patient match resulting in an unmet need.

- **Therapy is costly.**

  Despite the USPSTF's recommendation for these therapeutic interventions, there is no comprehensive financial coverage of these services by insurance companies or Medicaid, leaving many mothers to pay for these services out-of-pocket. With sessions ranging from $100-$250 each out-of-pocket, 1:1 therapy is prohibitively expensive as a treatment measure, let alone a prevention measure.

  Add in the cost of childcare that is necessary while away at the appointment, and it is easy to understand why new mothers—especially those who are resource-constrained—are resistant to traditional therapy, even if recommended by a provider.

- **Traditional talk therapy is time-intensive.**

  Expecting and new moms are short on time to do things for themselves. Between navigating their prenatal appointments, their well-child appointments, and their new baby's sleep and feeding schedules, it can feel overwhelming to coordinate any additional appointments.

  Even if talk therapy sessions are virtual, coordinating around feedings, naps, and work—if they have returned to work—is exhausting.

50% **of perinatal mood and anxiety disorders are preventable through low-cost, low-intensity, technology-enabled solutions**

This is where digital interventions come in. They are able to overcome these three challenges of provider scarcity, cost, and time—and deliver these therapeutic interventions in an accessible, convenient, and cost-effective way.

In fact, research shows that up to 50% of perinatal mood and anxiety disorders are preventable through low-cost, low-intensity, technology-enabled solutions.[22]

In addition to their convenience to the mom and low-cost to implement, digital solutions offer the ability to streamline perinatal mental health prevention and early-interventions protocols on a systems-based level while also deepening their impact at the individual level.

Digital tools can be a one-stop-shop for all of the elements essential to effective prevention by combining robust screening tools, education, monitoring, and treatment solutions all within a single product—and without burdening clinical staff. If the technology is customized like Canopie's app, in which risk factors and other social determinants of health are captured, patients are guided to targeted educational materials and therapeutic support modalities proactively, at optimal points in the peripartum journey, without the requisite of hitting a screening cutoff score. And if they do screen at a clinically significant number, they can be immediately and efficiently directed to national or health-systems-wide emergency support.

Furthermore, patients can access clinically-validated therapies, in multiple languages, conveniently, from the palm of their hand. They can engage in therapeutic techniques that the USPSTF recommends while they are waiting for the bus on the way to work, sitting in the clinic waiting room, nursing their baby.

With digital tools, there are impact opportunities beyond education, screening, and on-demand therapy that leverage existing mental health care pathways. Digital tools can be a very effective and efficient way of connecting the most at-risk and high need mothers to therapists, counselors, or coaches that are part of a health system or payer network. They have the advantage of being able to target engaged users at critical points in their journey so they can fast-track a mom to getting the care she needs.

Additionally, patients are recommended and referred to resources in an objective, judgment-free way, removing the shame barrier that so often prevents patients from pursuing mental health care.

Dr. Alinne Barrera also highlights that the nimbleness of digital tools have more capacity to evolve to ensure they are more inclusive of diverse experiences. She shares, "There are still barriers for low income and ethnically diverse women seeking 1:1 therapy and finding a best-fit provider that they feel best gets them. This is changing with more digital tools being developed for and by diverse teams. Given the shortage of diverse mental health providers who serve these populations, Intentionally built tools can step in as an effective and inclusive care tool to fill the care gap."

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Summary

Implementing effective, prevention-based solutions to solve the mental health care crisis feels like a no-brainer. Families save time, money, and heartache—and gain emotional resilience that they can use throughout the inevitable ups and downs of parenthood. And risk-bearers in health care save money—and gain happier, more satisfied customers.

Our current reactive approach to treating mental health conditions after they have already surfaced is not working. Investing in innovative preventative and early intervention strategies—better screening, more education, and clinically-effective digital therapeutic tools—that can integrate into the current standard of prenatal and postpartum care is essential to mitigate the crisis and reduce the immense financial, social, and human costs perinatal mood disorders cost us each year.

That's why, as we look at the President's proposal for fiscal year 2023 and the investments in maternal health and mental health as summarized by 2020Mom.org, we are strong advocates for those initiatives targeting prevention and early intervention. Whether it's through enhanced screening, better mental health education for moms and clinicians, or the integration of digital behavioral health tools, these are all initiatives that can reduce strain on the system while also boosting impact on society.

These initiatives can reduce strain on the system while also boosting impact on society

Call to Action

We believe we can change the tide and we are hopeful that those biggest players in the game—health systems, payers, and even clinicians—can each do their part to get us there.

TAKEAWAYS

Screening tools play a significant role in any maternal mental health prevention strategy, but we need to reassess their **comprehensiveness**. They also cannot function in isolation in identifying at-risk populations. Education, management, and care-connection are equally important pillars of prevention.

More **education on perinatal mood disorders** throughout perinatal OB and midwifery care is mandatory for increasing awareness and empowering expecting and new moms to be their own mental health advocates. It can also help normalize seeking support before and after any mental health concern manifests.

Prenatal and postpartum clinical providers play a significant role in closing the mental health care gap for expecting and new moms. This means there needs to be more **provider-focused education** on their role in identifying, supporting, building patient trust, and triaging patients and clients to both prevention and treatment focused resources and solutions.

Digital therapeutic tools are a cost-effective and clinically-effective solution to scaling up universal prevention and early-intervention initiatives for expecting and new moms without additional burden on health systems.

At Canopie, we are honored to be able to play a role in innovating how maternal mental health care is delivered. But we know we cannot do it alone. Countless other organizations have embraced a more proactive approach to maternal mental health through creative solutions, and together, we are hopeful that a prevention-first approach will help foster healthier, happier, and more resilient mothers, babies, and whole families.

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Canopie supports prevention/early intervention-based maternal mental health care. We work with NICUs, pediatricians and health systems to connect families with evidence-based maternal mental health support via our mobile app. Our app is free for low-resource families and is in English and Spanish.

Canopie is also an approved AAP STAR Center Resource, as we've been working closely with the AAP since we started in December 2020.

References

1 US Preventive Services Task Force. Interventions to Prevent Perinatal Depression: US Preventive Services Task Force Recommendation Statement. JAMA. 2019;321(6):580–587. doi:10.1001/jama.2019.0007

2 Chatterjee, R. (2018, August 28). Panel: Doctors should focus on preventing depression in pregnant women, New Moms. NPR. https://www.npr.org/sections/health-shots/2018/08/28/642295034/panel-docs-should-focus-on-preventing-depression-in-pregnant-women-new-moms

3 https://www.kff.org/medicaid/issue-brief/medicaid-postpartum-coverage-extension-tracker/

4 Rogers A, Obst S, Teague SJ, et al. Association Between Maternal Perinatal Depression and Anxiety and Child and Adolescent Development: A Meta-analysis. JAMA Pediatr. 2020;174(11):1082–1092. doi:10.1001/jamapediatrics.2020.2910

5 The high costs of maternal morbidity show why we need greater investment in maternal health. Mathematica. (n.d.). https://www.mathematica.org/publications/the-high-costs-of-maternal-morbidity-show-why-we-need-greater-investment-in-maternal-health

6 Tommee Tippee uncovers alarming data: 57% of moms believe they currently have or had undiagnosed postpartum depression or postpartum anxiety. Yahoo! Finance. https://finance.yahoo.com/news/tommee-tippee-uncovers-alarming-data-140400843.html?

7 Pattani, N. F. and A. (2019, November 29). Black mothers get less treatment for their postpartum depression. NPR. https://www.npr.org/sections/health-shots/2019/11/29/760231688/black-mothers-get-less-treatment-for-their-postpartum-depression

8 US Preventive Services Taskforce.

9 Bailey RK, Mokonogho J, Kumar A. Racial and ethnic differences in depression: current perspectives. Neuropsychiatr Dis Treat. 2019 Feb 22;15:603-609. doi: 10.2147/NDT.S128584. PMID: 30863081; PMCID: PMC6390869.

10 Pattani (2019)

11 Chaudron LH, et. al. Accuracy of depression screening tools for identifying postpartum depression among urban mothers. Pediatrics. 2010 Mar;125(3):e609-17. doi: 10.1542/peds.2008-3261. Epub 2010 Feb 15. PMID: 20156899; PMCID: PMC3030186.

12 AB-2193 Maternal mental health. (2018, September 26). ttps://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB2193

13 https://www.mmhla.org/screening-project/

14 Zauderer C. Postpartum depression: how childbirth educators can help break the silence. J Perinat Educ. 2009 Spring;18(2):23-31. doi: 10.1624/105812409X426305. PMID: 20190853; PMCID: PMC2684038.

15 Bedaso, A., Adams, J., Peng, W. et al. The relationship between social support and mental health problems during pregnancy: a systematic review and meta-analysis. Reprod Health 18, 162 (2021). https://doi.org/10.1186/s12978-021-01209-5

16 Explore adequate prenatal care in the United States: 2021 Health of Women and Children Report. America's Health Rankings. https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/prenatalcare_adquate/state/ALL

17 Optimizing postpartum care. ACOG. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care

18 Cheng, D., Schwarz, E. B., Douglas, E., & Horon, I. (2009). Unintended pregnancy and associated maternal preconception, prenatal and postpartum behaviors. Contraception, 79(3), 194–198. https://doi.org/10.1016/j.contraception.2008.09.009

19 Daniels P, Noe GF, Mayberry R. (2006). Barriers to prenatal care among Black women of low socioeconomic status. Am J Health Behav. 2006 Mar-Apr;30(2):188-98. doi: 10.5555/ajhb.2006.30.2.188. PMID: 16533103.

20 Explore mental health providers in the United States: 2021 annual report. America's Health Rankings. https://www.americashealthrankings.org/explore/annual/measure/MHP

21 Sambrook Smith, M., Lawrence, V., Sadler, E., & Easter, A. (2019). Barriers to accessing mental health services for women with perinatal mental illness: Systematic review and meta-synthesis of qualitative studies in the UK. BMJ Open, 9(1). https://doi.org/10.1136/bmjopen-2018-024803

22 Muñoz, R. F., Le, H.-N., Barrera, A. Z., & Pineda, B. S. (2021). Leading the charge toward a world without depression: Perinatal depression can be prevented. Archives of Women's Mental Health, 24(5), 807–815. https://doi.org/10.1007/s00737-021-01160-1