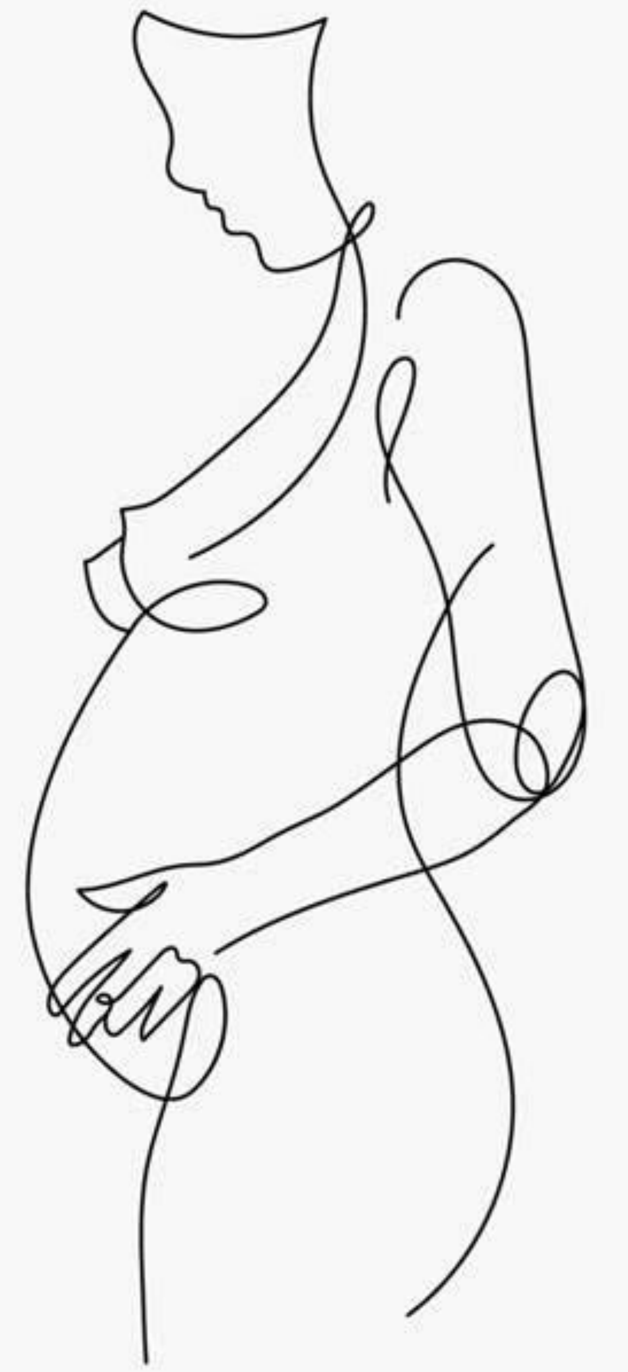


Pregnancy Mental Healthcare Challenges- MotherToBabyFL Experience

Sarah G. Običan, MD

MotherToBaby FL

University of South Florida

OTIS 2023

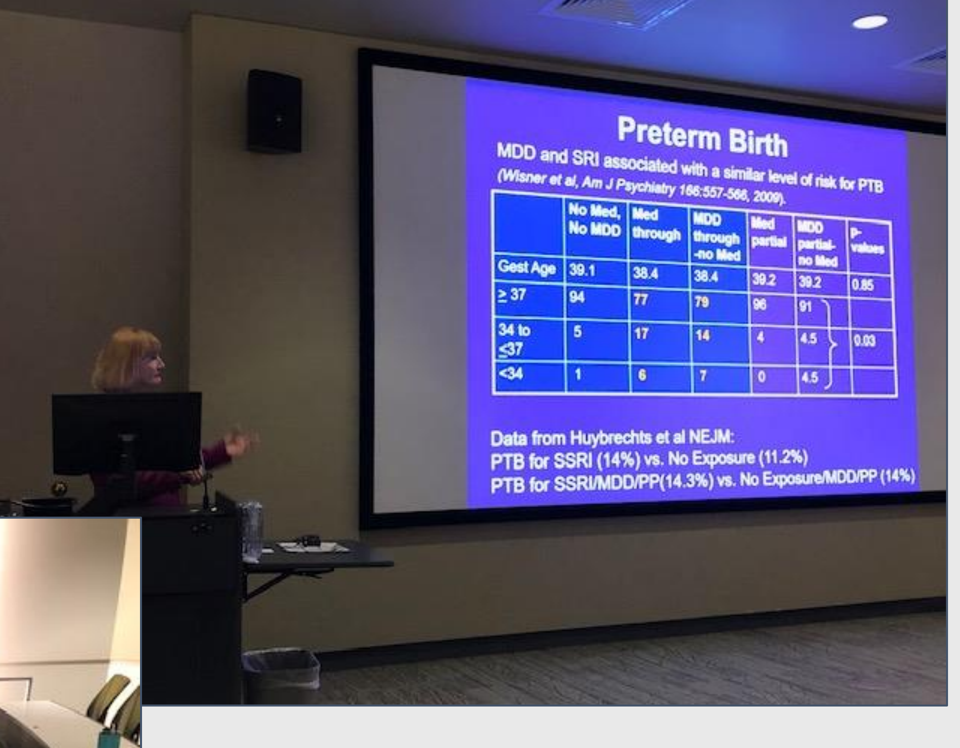
Charleston, SC

MotherToBaby FL

- University of South Florida 2015
  - Start MTB affiliate/Exposure clinic
  - Fetal therapy
  - Fetal echocardiography
- Perinatal genetics
- Founded in 2018, became the 14th MTB site
- Exposure clinic

- Outreach

Human Teratogen's Course 2019



USF Health

USF Health

Society for
Birth Defects
Research & Prevention
EST. 1960 AS THE TERATOLOGY SOCIETY

OTIS
Organization of Teratology
Information Specialists

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MTBFL

- Created "Exposure clinic"
- All MTB inquiries
  - 2019 163 inquiries
  - 2020 265 inquiries
  - 2021 1,279 inquiries
  - overall 1,707 inquires -- 2,809 unique exposures

  - 2022 601 (↓ from Covid vaccine year)
  - 74% traditional model
  - 26% Exposures clinic

Received: 11 May 2022 | Revised: 30 June 2022 | Accepted: 5 July 2022

DOI: 10.1002/bdr2.2069

RESEARCH ARTICLE

Birth Defects Research

A novel clinic structure for exposure counseling during pregnancy

Katherine Pressman | Réka Müller | Nevena Krstić | Sarah Običan

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Abstract

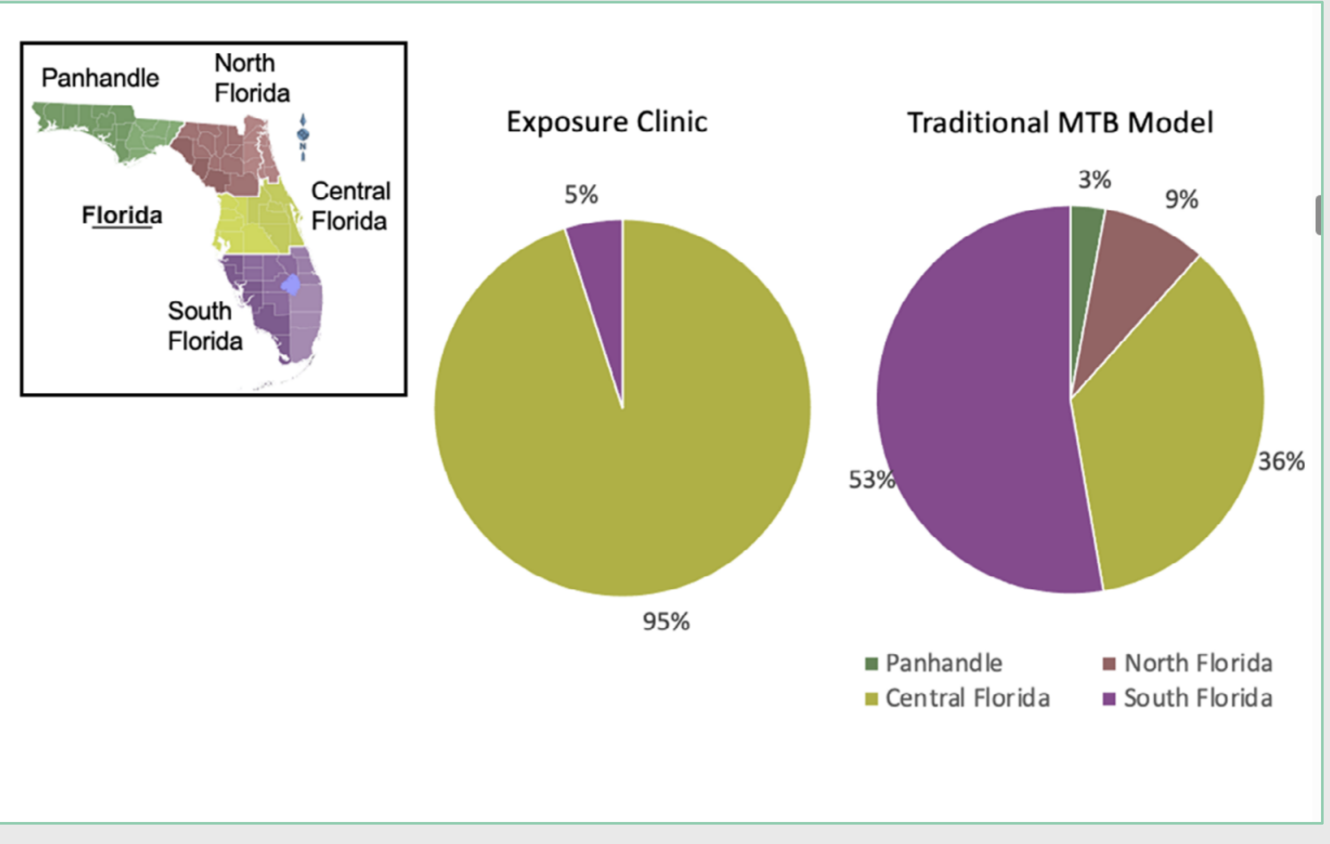
Background: Congenital malformations and adverse fetal outcomes secondary to teratogenic exposures are major public health concerns. We review all inquiries made to the Florida MotherToBaby service center as well as the novel Exposure Clinic, which offers direct patient counseling.

Methods: We completed a retrospective review of all inquiries made to the MotherToBaby Florida service and the Exposure Clinic consults between its inception January 2019 through December 2021. All de-identified data was collected at the time of the inquiry and stored in the OTIS database. Aggregate data was then extracted and descriptive statistics were performed. A *p* value of less than .05 indicated statistical significance.

Results: In 2019, there were 163 total inquiries, 265 in 2020, and 1,279 in 2021. These 1,707 inquiries covered 2,809 unique exposures. In the Exposure Clinic, 49 patients were seen in 2019, 140 in 2020, and 263 in 2021. The clinic's geographical reach increased over time with patients from 22 different counties being seen in 2021. Of all individual exposures, 45% were evaluated in 452 unique encounters in the Exposure Clinic and 55% were evaluated in 1255 unique encounters via traditional modes of contact. The average number of exposures discussed at each clinic appointment 2.8 versus 1.2 in inquiries via traditional methods. The majority of all exposures were regarding prescription

Exposure clinic

- In person or telehealth
- TIS and MFM (40-60 minutes)
- Pre Covid: 4 – ½ days per month
- Currently: 6-7 – ½ days per month



- 2019 49
- 2020 140
- 2021 263

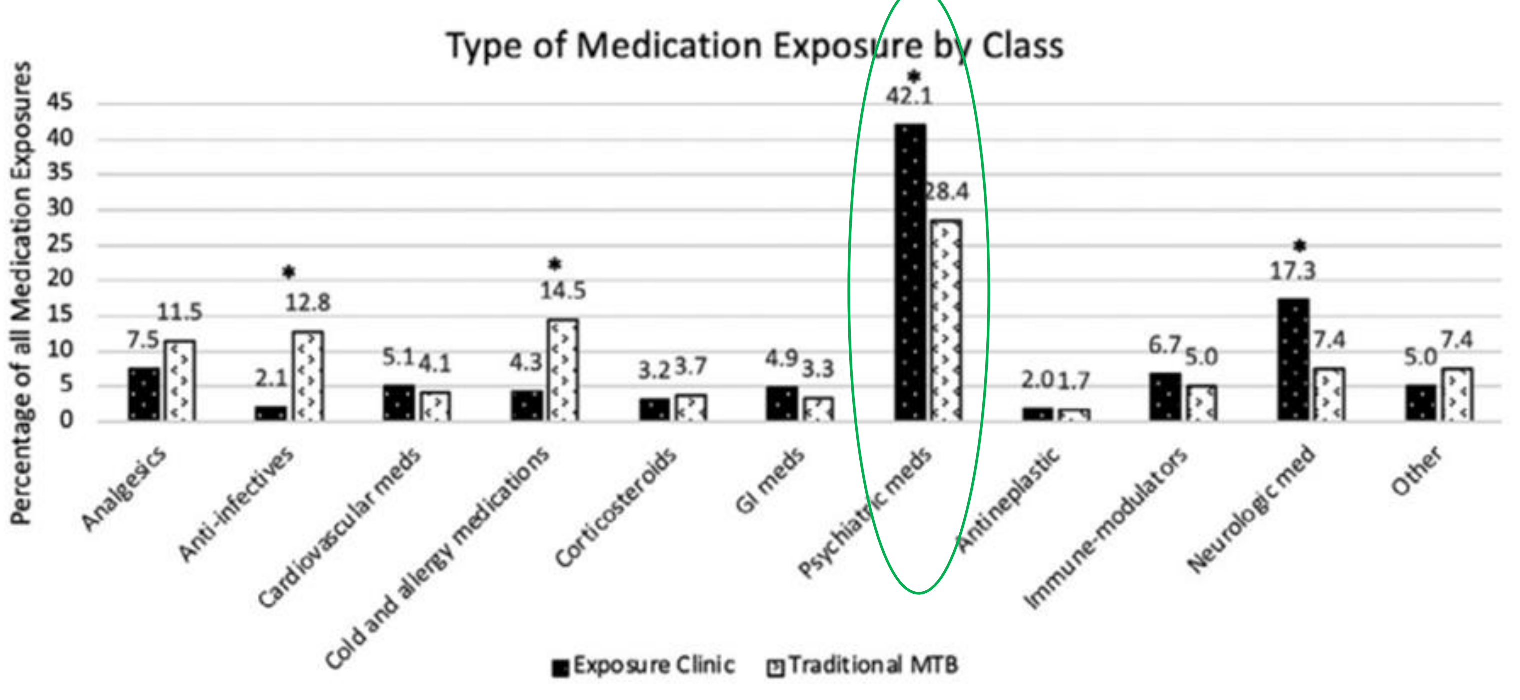
- The average number of exposures discussed at each clinic appointment 2.8 vs. 1.2 in inquiries via traditional methods

TABLE 2 Timing of exposures

Timing of exposure	Exposure clinic inquiries *N* = 452 (%)	Traditional MTB inquiries *N* = 1,234[a] (%)	*p* value
Adoption	1 (0.2%)	6 (0.5%)	.454
Preconception	83 (18.4%)	113 (9.2%)	<.001[b]
Pregnancy	318 (70.4%)	386 (31.3%)	<.001[b]
Pre-exposure	17 (3.8%)	444 (36.0%)	<.001[b]
Breastfeeding	2 (0.4%)	78 (6.3%)	<.001[b]
Pre-exposure	4 (0.9%)	140 (11.3%)	<.001[b]
Paternal exposure	0 (0.0%)	5 (0.4%)	.175
Multiple	26 (5.7%)	28 (2.3%)	<.001[b]
Missing/declined	1 (0.2%)	34 (2.8%)	.001[b]

[a]21 inquiries via traditional MTB communication were considered "out of realm."
[b]Indicate statistical significance using an adjusted alpha level of <.005 (Bonferroni correction).

FIGURE 3 Type of medication exposure by class. *Indicate statistical significance using an adjusted alpha level of <.0045 (Bonferroni correction).



Exposure clinic

- Psychiatric conditions- most common health condition inquired about
  - McKee, 2020: sample of 40 M deliveries noted an increase of perinatal mood/anxiety disorders from 18.4/1000 to 40.4/1000
  - Severe mental illness 4.2/1000 to 8.1/1000

- Less than 50% if individuals continue psychiatric medications
  - Though discontinuation may lead to poor pregnancy outcomes

Cantwell et al., 2011; Cohen et al., 2006; Petersen et al., 2014
Jablensky, Morgan, Zubrick, Bower, & Yellachich, 2005

Risks of poorly treated mental health conditions

- Maternal: Suicide, infanticide, hypertension/PEC, substance abuse, limited engagement with medical care and self-care, pp depression, impaired infant attachment, disrupted relationship with partner

- Fetal: SGA, PTB

Trost et al. 2023

Exposure clinic

- Our experience:
  - Many patients dropped from practice
    - Access to healthcare providers who are comfortable and knowledgeable regarding treatment of psychiatric disease in pregnancy is limited in the state of Florida, which has the lowest amount of per capita mental health spending in the country

      (FY, 2002, FY 2011, FY 2012 SMHA-Controlled Mental Health Expenditures per Capita)
  - Cannot get timely appointments
  - Cost prohibitive
  - Opioid use?

Exposure clinic strengths and reach

- Physician or healthcare provider/patient relationship
- Follow up, medical advice, provide medication adjustment
- Ability to do Telehealth
- Statewide availability

- Ultimately unmasks the other unmet needs of our community….

2019-2022

	Exposures (clinic and traditional model)	**Inquires**	**Average # of exposures**	**Highest number of exposures per inquiry**
Psychiatric	887	513	1.73	7
All	3950	2308	1.71	16
% of psych to all	22.5%	22.2%		

Reka Muller, MTBFL

Percent of inquires based on delivery model and type of exposure

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

	Exposure Clinic	Traditional Model
Psychiatric	53%	10%
Non-psychiatric	47%	90%

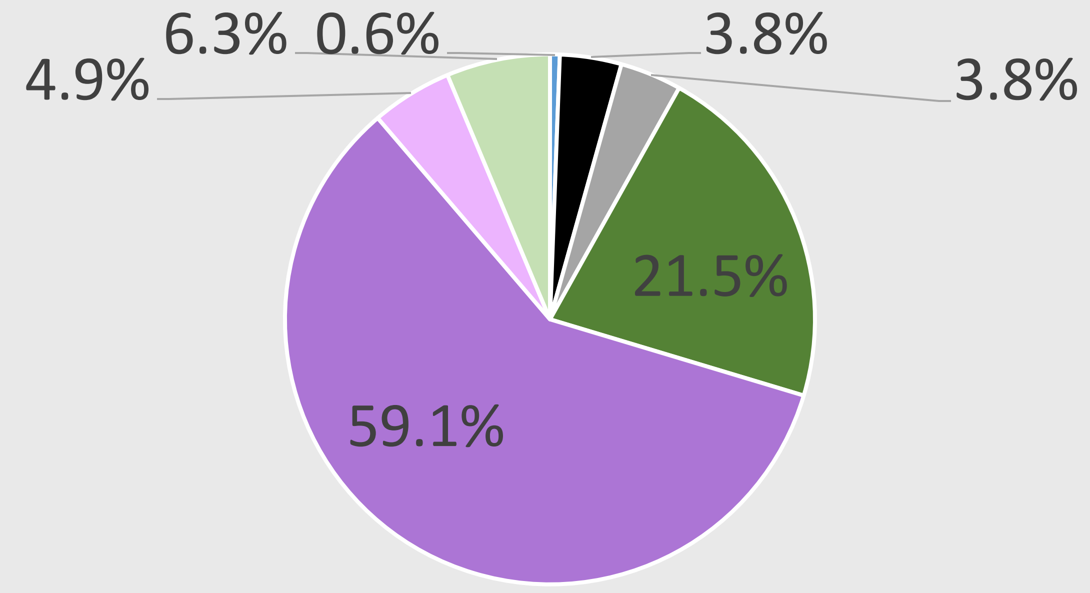
Reka Muller, MTBFL

Years

	Psychiatry	All
2022	31.0%	26.0%
2021	37.6%	55.4%
2020	19.5%	11.5%
2019	11.9%	7.1%

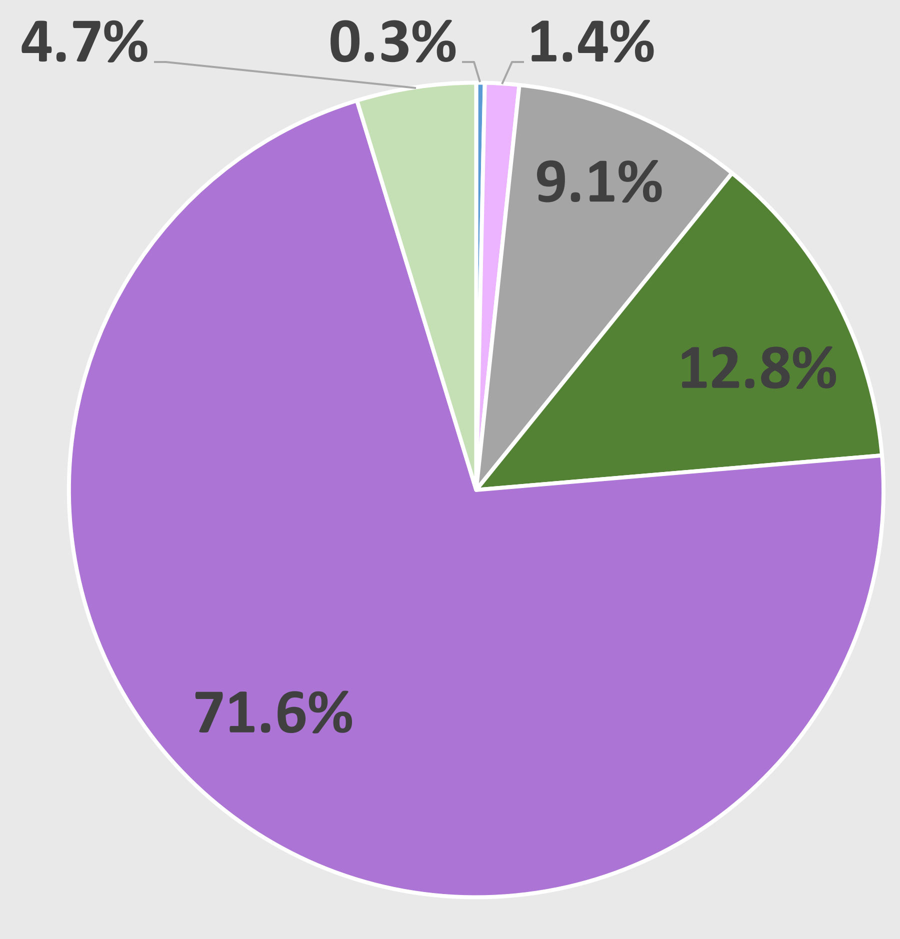
Reka Muller, MTBFL

Category of Consult (exposure clinic and traditional model) – Psychiatric medications



Adoption
Breastfeeding
Breastfeeding Pre-Exposure
Preconception
Pregnancy
Pregnancy Pre-Exposure

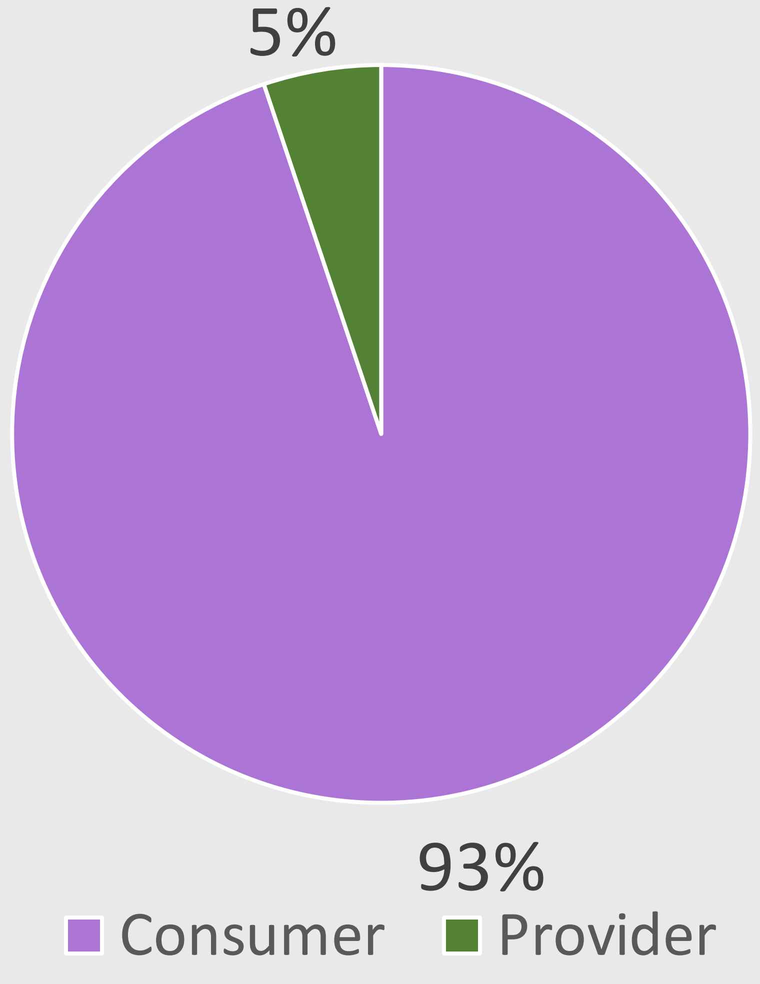
Race/Ethnicity – Psychiatric medications



Reka Muller, MTBFL

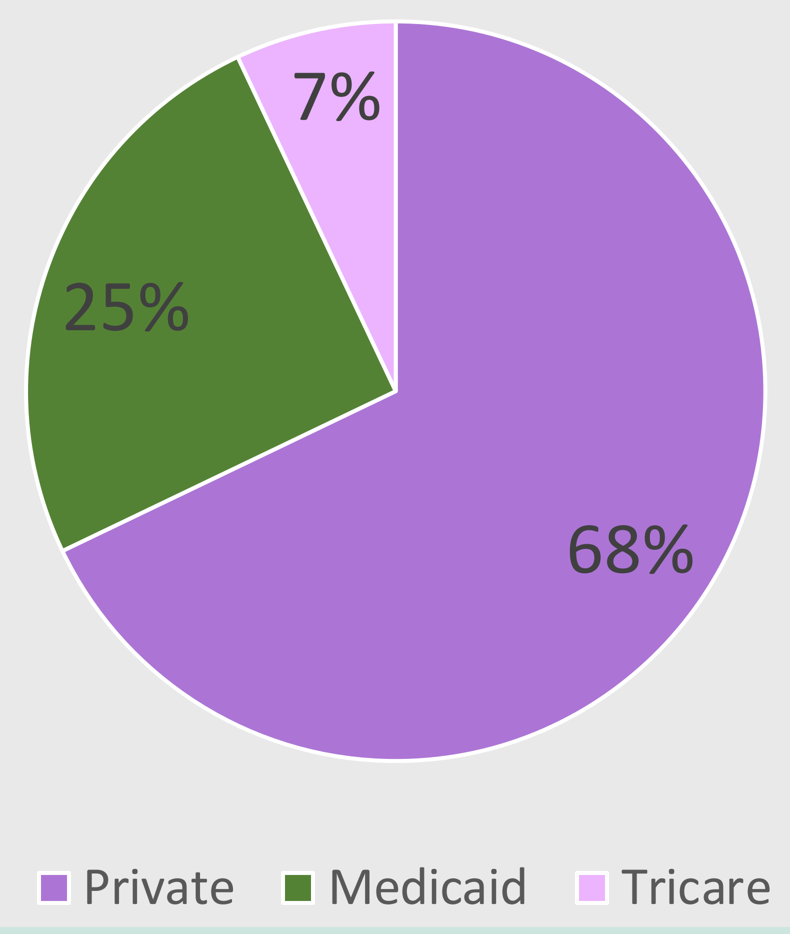
American Indian or Alaska Native | Asian | Black | Hispanic | White | Multiple

Consumer/Provider – Psychiatric medications



Reka Muller, MTBFL

Insurance – Psychiatric medications



Reka Muller, MTBFL

Most common psychiatric medications (n)

Medication	n
sertraline	91
escitalopram	61
lamotrigine	54
dextroamphetamine	48
bupropion	47
fluoxetine	42
alprazolam	39
buspirone	37
amphetamine	33
quetiapine	33

Type of medications (n)

Type of medication	n
SSRI/SRI	230
Sedative	176
Stimulant	107
Phenyltriazine type	54
Aminoketone antidepressant	47
Bicyclic antidepressant	35
Dibenzothiazepine antipsychotic	33
SNRI/NRI	29
Piperazine antipsychotic	27
Tricyclic antidepressant	17

GC student thesis
Patient reported anxiety

Average Likert-scale scores

5
4
3
2
1

mean=2.46

***

mean=1.65

Average pre-counseling score
Average post-counseling score

Patient reported guilt

Average Likert-scale scores

4

3

2

1

***

mean=2.45

mean=1.66

Average pre-counseling score

Average post-counseling score

Percent of Participants Who Felt Fully Empowered to Make a Decision Before and After Receiving Exposure Counseling

Percent of Participants

100
90
80
70
60
50
40
30
20
10
0

***

Pre-counseling
Post-counseling

decisionally empowered
not decisionally empowered

Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017–2019

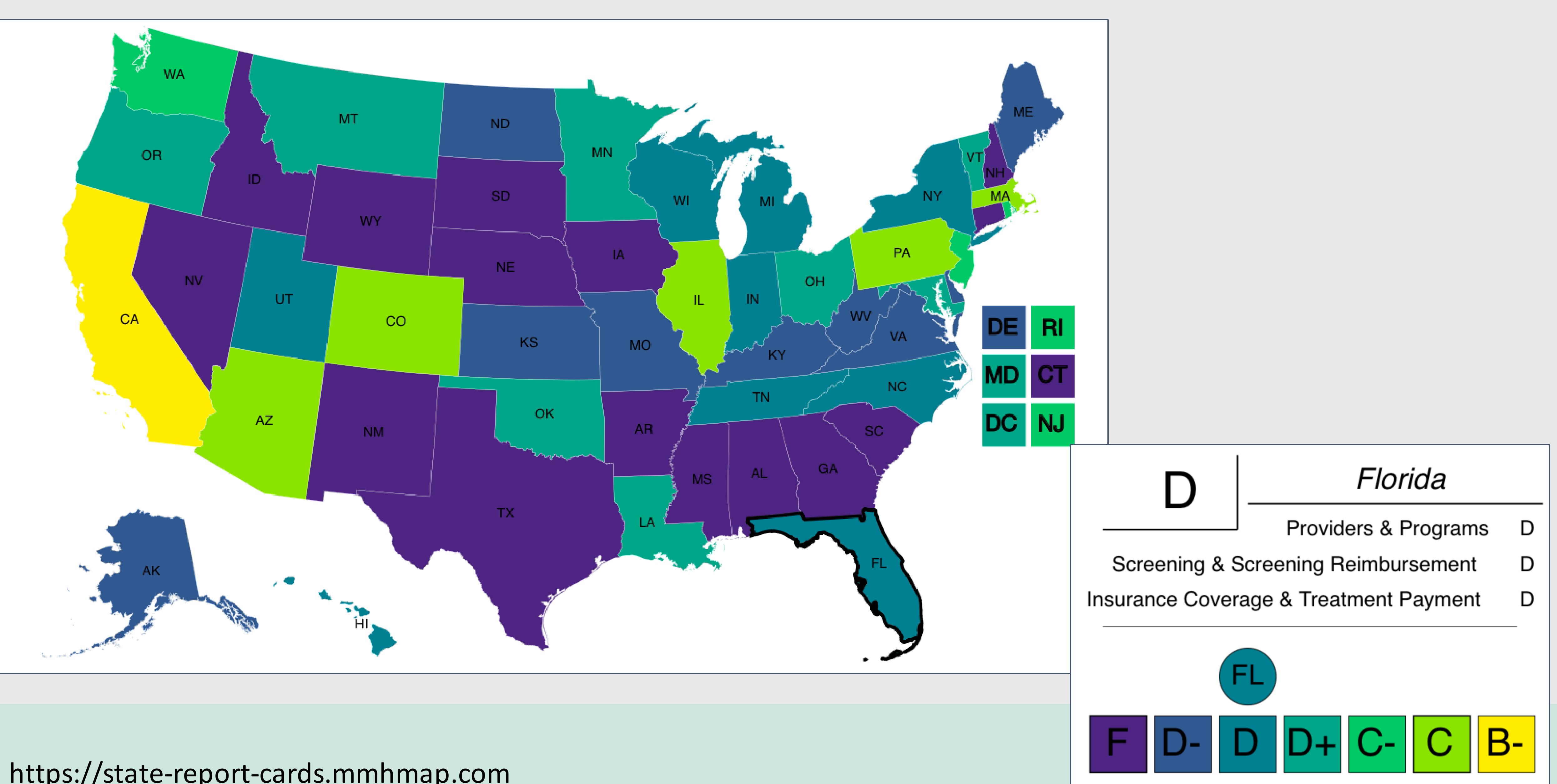
Susanna Trost, MPH; Jennifer Beauregard, MPH, PhD; Gyan Chandra, MS, MBA; Fanny Njie, MPH;
Jasmine Berry, MPH; Alyssa Harvey, BS; David A. Goodman, MS, PhD

Table 4. Underlying causes of pregnancy-related deaths*, overall and by race or ethnicity[1], data from Maternal Mortality Review Committees in 36 US states, 2017–2019[1]

	Total		Hispanic		Non Hispanic									
					AIAN		Asian		Black		NHOPI		White	
	N	%	n	%	n	%	n	%	n	%	n	%	n	%
Mental health conditions[2]	224	22.7	34	24.1	2	-	1	3.1	21	7.0	0	-	159	34.8
Hemorrhage[3]	135	13.7	30	21.3	2	-	10	31.3	33	10.9	1	-	53	11.6
Cardiac and coronary conditions[4]	126	12.8	15	10.6	1	-	7	21.9	48	15.9	0	-	49	10.7
Infection	91	9.2	15	10.6	1	-	0	0.0	23	7.6	0	-	49	10.7
Embolism-thrombotic	86	8.7	9	6.4	0	-	2	6.3	36	11.9	0	-	34	7.4
Cardiomyopathy	84	8.5	5	3.6	0	-	2	6.3	42	13.9	0	-	33	7.2
Hypertensive disorders of pregnancy	64	6.5	7	5.0	0	-	1	3.1	30	9.9	1	-	22	4.8

...include deaths of suicide, overdose/poisoning related to substance use disorder, and other deaths determined by the MMRC to be related to a mental health condition, including substance use disorder.

2023 U.S. Maternal Mental Health State Report Cards



https://state-report-cards.mmhmap.com

2023 U.S. Maternal Mental Health Risk and Resources Maps

Florida

Risk Factors Score	16
PMH Providers	15
Est. Annual Births	16,837
Provider Ratio	0.89
Provider Shortage Gap	69

Selected Counties:

Hillsborough County, FL

Providers
13
4

Risk
36
29
22
14
7
0

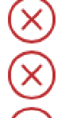
https://www.mmhmap.com

Florida

Est. Annual Birthrate	212,817	Provider Shortage Gap	951	Certified Providers	113
Provider Ratio	0.78	Average Caseload	1,282	Licensed Prescribers	19

Award	Providers & Programs
	PMH-C Provider to Patient Ratio
	Maternal Mental Health Prescriber to Patient Ratio
	Inpatient Perinatal Mental Health Treatment Program
	Outpatient Intensive or Partial Hospitalization Programs
	Maternal Mental Health Task Force or Commission
	CBOs Providing Direct MMH Services

Award	Screening & Screening Reimbursement
	Requires OB-GYNs to screen for MMH disorders
	Reimburses OB screening: pregnancy and postpartum
	Requires MCO's to collect HEDIS prenatal measures
	Requires MCO's to collect HEDIS postpartum measures
	Private Insurance Prenatal Screening Billing
	Private Insurance Postpartum Screening Billing

Award	Insurance Coverage & Treatment Payment
	Medicaid Expansion
	Postpartum Medicaid Extension
	Requires health plans to develop a MMH QMP
	Private Insurance Prenatal Treatment Billing
	Private Insurance Postpartum Treatment Billing

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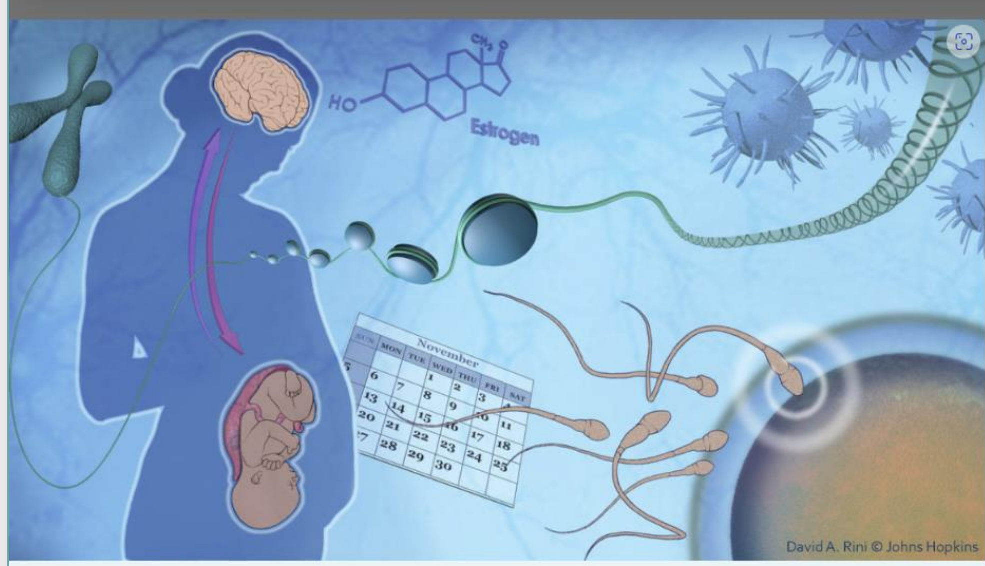
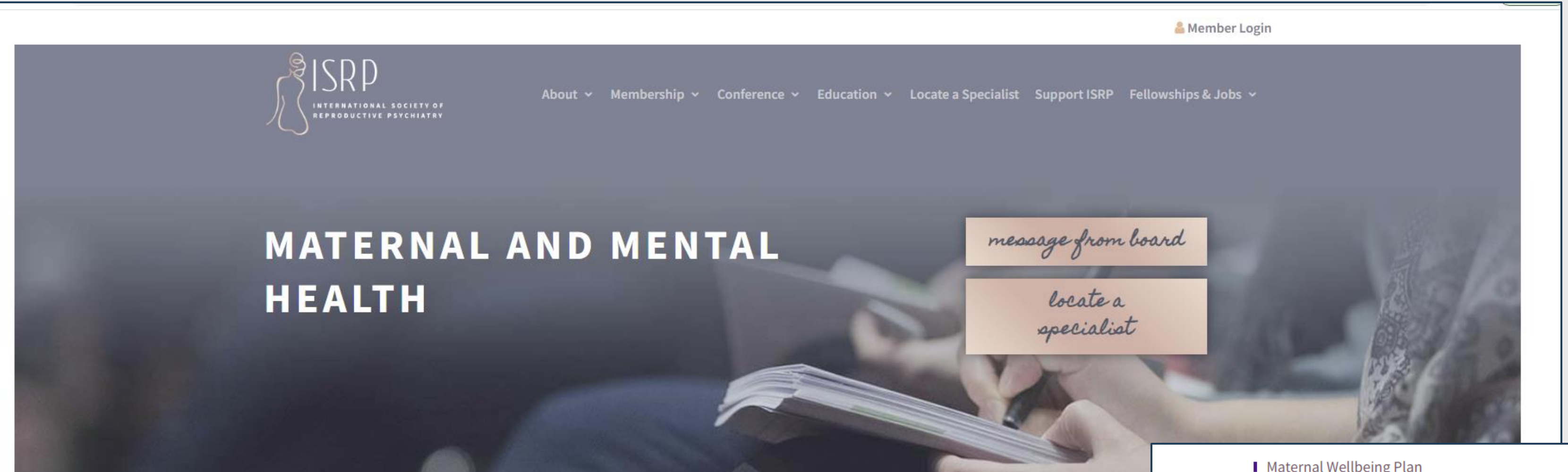


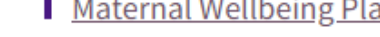
WELCOME TO NCRP TRAINING

NCRP is an interactive curriculum designed to teach reproductive psychiatry to mental health professionals – either within an educational program or self-guided.

Over 50% of psychiatric patients are women.
Over 80% of women will have at least one pregnancy and 50% of these are unplanned.

Yet psychiatrists in training are not required to have any education about the management of psychiatric illness in the perinatal period.





MATERNAL MENTAL HEALTH

Pregnancy can be an exciting and joyous experience, but it can also be an emotional and physically challenging experience.

What are the signs and symptoms of maternal depression and anxiety?

- Symptoms of postpartum depression can include:
- exhaustion
- anxiety

- Maternal Wellbeing Plan
- Mood Disorders during and after Pregnancy
  - New Mom Mental Health Checklist
  - New treatment options
    - Brexanolone
- Anxiety Disorders
  - PTSD: A Guide for Families
  - OCD
- Postpartum psychosis
  - Postpartum Psychosis
- Additional Resources
  - Postpartum Support International
  - Massachusetts General Hospital (MGH) Women's Mental Health
  - Infant Risk Center
  - Find inpatient and partial hospitalization perinatal psychiatry treatment centers
  - Mother To Baby
  - Postpartum information in multiple languages
  - The International Marce Society
  - Postpartum Progress

Please remember this information is intended for educational purposes only and should not substitute medical advice from a healthcare provider.

contributing to the overall sense that we as women, and mothers, aren't meeting expectations if everything isn't perfect. Developing postpartum depression or anxiety wouldn't be looked upon favorably by our peers, so we don't talk about it or get treatment. Talking about it opens conversations and helps to identify resources for women to access in their own communities.

What happens without treatment? Postpartum depression occurs in 20% of postpartum moms and suicide is the most common cause of death in new moms. Without treatment depressed Moms are more likely to have impaired bonding with their babies. Untreated depression and anxiety during and after pregnancy can cause issues with children that are identifiable into adulthood including cognitive and developmental delays; poor self-control and aggression and an increase risk of substance abuse.

Are some women at higher risk for postpartum or maternal mental illness? Yes, studies have identified certain genetic factors that increase risk of developing postpartum depression, it tends to run in families and women with a history of PMDD are at higher risk of postpartum mood and anxiety disorders. In addition, preexisting depression, anxiety or bipolar depression, a family history of mental illness, a personal history of trauma or abuse, experiencing a stressful event in the last year, an inadequate support system, financial stress, trouble breastfeeding and mom or baby with physical health issues during and after pregnancy.

What can someone do to decrease the risk of developing postpartum depression or anxiety? In about 60 % of women, depression begins before

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Brown Women's Mental Health Fellowship

University of Illinois at Chicago Women's Mental Health Fellowship

Northwestern -The Asher Center Perinatal and Women's Mental Health Fellowship

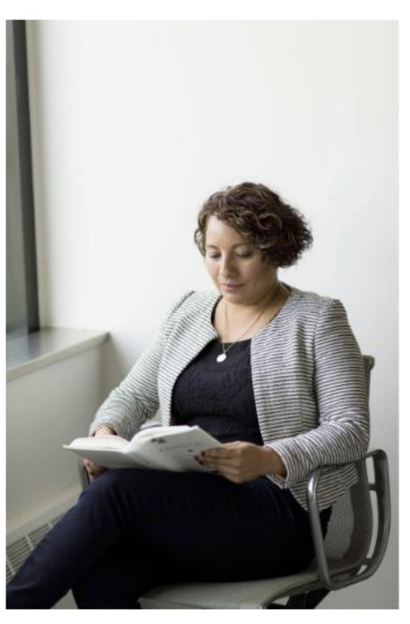
University Hospitals Cleveland Medical Center- Reproductive Psychiatry Track within Public and Community Fellowship

University of Washington Women's Mental Health Fellowship

University of North Carolina at Chapel Hill Women's Mood Disorders Fellowship

New York University Women's Mental Health Fellowship

McLean Women's Mental Health Psychiatry Fellowship



Birth plan

- Birth plan and post partum mental health plan
    - Supportive family/friends
    - psychologist/ psychiatrist

- Need for medication adjustment pp
- Supporting lactation
    - Follow up visits

SLEEP

It is often very hard to get rest or sleep when you have a new baby, as a young baby is not meant to sleep through the night. It is normal for them to sleep in 2-3 hour stretches. This will change as baby grows. Sleep is important for your health. Your sleep will probably change after the baby comes, but you can try these things to help yourself get needed rest.

- You may need to sleep in 2-3 hour blocks at a time, strung together to get you the 7-9 hours you need.
- During that time, don't do anything except try to sleep. If you need to get up for feeding, do it, change his diaper, but don't play with him, and then go right back to bed. Keep lights off, low, or use a red bulb. Don't start watching TV, turn music on, or check your phone or other electronics.
- Create a healthy sleep environment—dark, quiet, comfortable, with not a lot of distractions.
- In addition to the main sleep time, rest or nap when the baby is sleeping. Don't use that time for house chores or any work.

CONNECT

- Stay connected to supportive family and friends by phone, email and text.
- Encourage short visits, and be very clear about "visiting hours".
- Accept offers of help. Ask for it if you need it!

PLAN AHEAD

My best place for relaxing in my home is: ______________________

Healthy, easy foods I like to eat are: ______________________

People I can ask for help when I need it:

1. ______________ 2. ______________

Ways I like to exercise and connect with other people, which I could do with a small baby:

1. ______________ 2. ______________

Just in Case

Having a new baby is a big change. There are resources to help people figure out how to adjust. You can find help to keep you and your baby healthy, mentally and physically. If it's not going well, it's good to recognize that and get help.

My early signs that I am feeling bad, depressed, or too anxious:

____

It can be difficult to talk about not doing well. If you feel like this, who are 2 people you would talk with? 1.______________ 2.______________

What will you say? ______________________

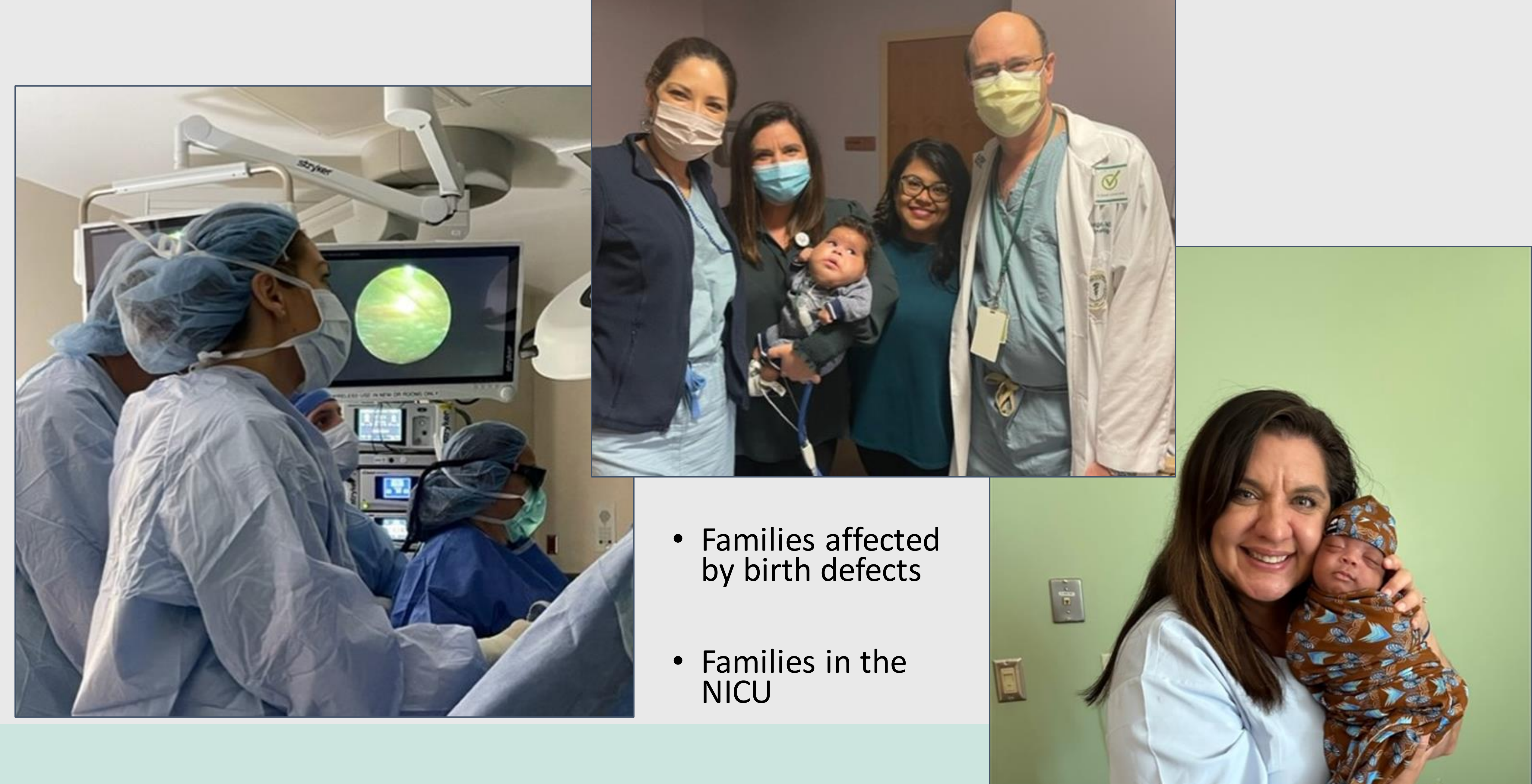
GET HELP

What is needed for our center

- Community education
  - Physicians/ Healthcare providers
  - Patient education and outreach
- Collaboration with societies nationally and importantly locally
  - National (PSI and HRSA maternal mental health hotline) and Local outreach (physicians and opioid use disorder program)
- Identify perinatal psychiatrists and resources
  - Dr. Deborah Knudsen Gonzales
  - Programs- healthcare providers to ask "FLBH impact"

What is needed for our center

- Development of a Perinatal Fellowship
- Programmatic support
- Education: identify participants
- Psychologist (including FCC)
  - Families in need of fetal intervention



• Families affected by birth defects
• Families in the NICU

CLINICAL PRACTICE GUIDELINE

NUMBER 4

JUNE 2023

REPLACES COMMITTEE OPINION 757, NOVEMBER 2018

Screening and Diagnosis of Mental Health Conditions During Pregnancy and Postpartum

Committee on Clinical Practice Guidelines—Obstetrics. This Clinical Practice Guideline was developed by the ACOG Committee on Clinical Practice Guidelines–Obstetrics in collaboration with Tiffany A. Moore Simas, MD, MPH, MEd; M. Camille Hoffman, MD, MSc; Emily S. Miller, MD, MPH; and Torri Metz, MD, MS; with consultation from Nancy Byatt, DO, MS, MBA; and Kay Roussos-Ross, MD.

The Society for Maternal-Fetal Medicine endorses this document.

The Committee on Women's Mental Health of the American Psychiatric Association reviewed and provided feedback on this document.

PURPOSE: To review evidence on the current understanding of mental health conditions in pregnancy and postpartum, with a focus on mood and anxiety disorders, and to outline guidelines for screening and diagnosis that are consistent with best available scientific evidence. The conditions or symptoms reviewed include depression, anxiety and anxiety-related disorders, bipolar disorder, suicidality, and postpartum psychosis. For information on psychopharmacologic treatment and management, refer to American College of Obstetricians and Gynecologists (ACOG) Clinical Practice Guideline Number 5, "Treatment and Management of Mental Health Conditions During Pregnancy and Postpartum" (1).

TARGET POPULATION: Pregnant or postpartum individuals with mental health conditions. Onset of these conditions may have predated the perinatal period or may have occurred for the first time in pregnancy or the first year postpartum or may have been exacerbated in that time.

METHODS: This guideline was developed using an a priori protocol in conjunction with a writing team consisting of one specialist in obstetrics and gynecology and one maternal–fetal medicine subspecialist appointed by the ACOG Committee on Clinical Practice Guidelines–Obstetrics and two external subject matter experts. ACOG medical librarians completed a comprehensive literature search for primary literature within Cochrane Library, Cochrane Collaboration Registry of Controlled Trials, EMBASE, PubMed, and MEDLINE. Studies that moved forward to the full-text screening stage were assessed by two authors from the writing team based on standardized inclusion and exclusion criteria. Included studies underwent quality assessment, and a modified GRADE (Grading of Recommendations Assessment, Development and Evaluation) evidence-to-decision framework was applied to interpret and translate the evidence into recommendation statements.

RECOMMENDATIONS: This Clinical Practice Guideline includes recommendations on the screening and diagnosis of perinatal mental health conditions including depression, anxiety, bipolar disorder, acute postpartum psychosis, and the symptom

CLINICAL PRACTICE GUIDELINE

NUMBER 5

JUNE 2023

REPLACES PRACTICE BULLETIN NUMBER 92, APRIL 2008

Treatment and Management of Mental Health Conditions During Pregnancy and Postpartum

Committee on Clinical Practice Guidelines—Obstetrics. This Clinical Practice Guideline was developed by the ACOG Committee on Clinical Practice Guidelines–Obstetrics in collaboration with Emily S. Miller, MD, MPH; Torri Metz, MD, MS; Tiffany A. Moore Simas, MD, MPH, MEd; and M. Camille Hoffman, MD, MSc; with consultation from Nancy Byatt, DO, MS, MBA; and Kay Roussos-Ross, MD.

The Society for Maternal-Fetal Medicine endorses this document.

The Committee on Women's Mental Health of the American Psychiatric Association reviewed and provided feedback on this document.

PURPOSE: To assess the evidence regarding safety and efficacy of psychiatric medications to treat mental health conditions during pregnancy and lactation. The conditions reviewed include depression, anxiety and anxiety-related disorders, bipolar disorder, and acute psychosis. For information on screening and diagnosis, refer to American College of Obstetricians and Gynecologists (ACOG) Clinical Practice Guideline Number 4, "Screening and Diagnosis of Mental Health Conditions During Pregnancy and Postpartum" (1).

TARGET POPULATION: Pregnant or postpartum individuals with mental health conditions with onset that may have predated the perinatal period or may have occurred for the first time in pregnancy or the first year postpartum or may have been exacerbated in that time.

METHODS: This guideline was developed using an a priori protocol in conjunction with a writing team consisting of one specialist in obstetrics and gynecology and one maternal–fetal medicine subspecialist appointed by the ACOG Committee on Clinical Practice Guidelines–Obstetrics and two external subject matter experts. ACOG medical librarians completed a comprehensive literature search for primary literature within Cochrane Library, Cochrane Collaboration Registry of Controlled Trials, EMBASE, PubMed, and MEDLINE. Studies that moved forward to the full-text screening stage were assessed by two authors from the writing team based on standardized inclusion and exclusion criteria. Included studies underwent quality assessment, and a modified GRADE (Grading of Recommendations Assessment, Development and Evaluation) evidence-to-decision framework was applied to interpret and translate the

June 2023

For providers

— eModule —

Addressing Perinatal Mental Health Conditions in Obstetric Settings

ACOG Launches Online Mental Health Training for Obstetric Providers

The American College of Obstetricians and Gynecologists (ACOG) launched a new eModule, Addressing Perinatal Mental Health Conditions in Obstetric Settings, developed by the Lifeline for Moms Program at UMass Chan Medical School and reviewed by members of ACOG's Maternal Mental Health Expert Workgroup. This online training educates obstetric care clinicians about mental health screening, assessment, differential diagnosis, triage, referral, treatment, follow-up, and monitoring. Additional clinician resources include:

- Perinatal Mental Health Tool Kit
- Guide for Integrating Mental Health Care into Obstetric Practice
- Alliance for Innovation on Maternal Health Perinatal Mental Health Conditions Patient Safety Bundle

Assessment and Treatment of Perinatal Mental Health Conditions

Share | Print

Programs

Perinatal Mental Health

- Summary of Perinatal Mental Health Conditions
- Patient Screening
- **Assessment and Treatment of Perinatal Mental Health Conditions**
- Educational Resources for Providers, Patients, and Families
- Guide for Integrating Mental Health Care into Obstetric Practice

ACOG's Clinical Practice Guideline 5: "Treatment and Management of Mental Health Conditions During Pregnancy and Postpartum" recommends that ...:

- Obstetricians be prepared to counsel patients on the benefits and risks of psychopharmacotherapy for perinatal mental health conditions when clinically indicated
- Obstetricians initiate psychopharmacotherapy for perinatal depression or anxiety disorders, refer patients to appropriate behavioral health resources when indicated, or both
- A validated screening tool be used to monitor for response to treatment or remission of depression or anxiety symptoms. If clinically indicated, the pharmacotherapy dosage should be up-titrated with the goal of remission of depressive and anxiety symptoms.
- Treatment for perinatal mood and anxiety disorders be equitably available and accessible to all pregnant and postpartum individuals

The guidance also recommends against withholding or discontinuing medications for mental health conditions due to pregnancy or lactation status alone. Please see Clinical Practice Guideline 5: "Treatment and Management of Mental Health Conditions During Pregnancy and Postpartum" for additional recommendations and information.

This information is designed as an educational resource to aid clinicians in providing obstetric and gynecologic care, and use of this information is voluntary. This information should not be considered as inclusive of all proper treatments or methods of care or as a statement of the standard of care. This information does not represent ACOG clinical guidance. It is not intended to substitute for the independent professional judgment of the treating clinician. Variations in practice may be warranted when, in the reasonable judgment of the treating clinician, such course of action is indicated by the condition of the patient, limitations of available resources, or advances in knowledge or technology. The American College of Obstetricians and Gynecologists reviews

Untreated mental illness is more harmful than any prescribed medications,

for mom and baby

reproductive psychiatry

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Thank you

For the exceptional work in perinatal genetics and TIS counseling

(and the graphs!)