Mothering Transitions RESEARCH

Mental Health Across the Perinatal Period

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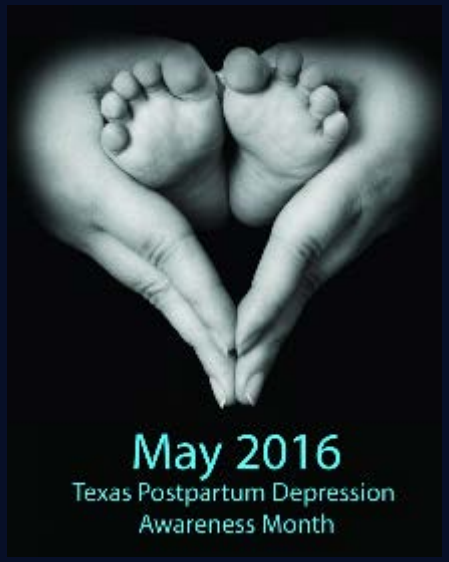

out of the blue
talking about maternal mental health

MATERNAL MENTAL HEALTH ALLIANCE
Awareness Education Action

Postpartum Depression

longstanding clinical issue

for over 30 years

PPDAM
Postpartum Depression
Association of Manitoba

Postpartum Depression (PPD) Prevalence

- 1 in 8 women will experience depression in the postpartum period

- National Canadian data = 8% will continue to experience depression past the first year postpartum

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Health Promotion Consequences

- Research suggests maternal health promotion behaviours are diminished as mothers with PPD are less likely than non-depressed mothers to:
  - Breastfeed
  - Attend well-child visits
  - Complete immunizations
  - Use home safety devices
  - Put infants to sleep in recommended sleeping position
  - Correctly use car seats
  - Read and provide stimulating experiences

(Zajicek-Farber 2009; Cadzow et all 1999)

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Child Developmental Consequences

- **Cognitive development**
  - General consensus that PPD predicts poorer language and IQ development in children and that this effect is found across childhood into adolescence
- **Behavioural development**
  - Meta-analysis of 193 studies→ small but significant association between maternal depression and child behavioural outcomes
- **Emotional development**
  - Meta-analyses → consistent associations between PPD and insecure attachment and difficulty in establishing effective self-regulation skills *(Martins and Gaffan, 2000; Atkinson et al., 2000; Campbell et al., 2004)*

Maternal PPD Risk Factors

- Previous history of depression
- Depression during pregnancy
- Anxiety during pregnancy

- Childcare stress
- Life stress
- Lack of social support
- Marital dissatisfaction/conflict
- Low self-esteem
- Low socio-economic status
- Single marital status
- Unwanted/unplanned pregnancy

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Review

Journal of Psychiatric Research 70 (2015) 67–82

Prevalence of postpartum depression among immigrant women: A systematic review and meta-analysis

Kobra Falah-Hassani [a, *], Rahman Shiri [b], Simone Vigod [c], Cindy-Lee Dennis [a]

Overall pooled prevalence = 20%

95% CI=17-22, 18 studies, N=14,239 women

Immigrant vs Non-Immigrant Women

OR =2.17, 95% CI=1.79 to 2.65

15 studies, N=50,519 women

- Immigrant women who have spent 5 years in Canada have almost twice as many children as the average Canadian-born woman
  (Ferrer & Adsera, 2016)

- Major birthrate differences depending on country of origin:
  - highest birthrates = Africa, Pakistan and India
  - lowest birthrates = Europe, US and East Asia

- Based on childbirth patterns of the roughly 125,000 women who immigrate to Canada each year
- Second highest per-capita immigration rate of any major country

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Depression in the antenatal period has received much less attention than in the postpartum

Lack of Recognition = Serious Implications

Consequences of Antenatal Depression

- Antenatal depression has been associated with:
  1. Inadequate nutrition and weight gain
  2. Increased alcohol consumption, substance abuse and smoking
  3. Late access in antenatal care
  4. Poorer antenatal appointment attendance

- Linked to stillbirth, premature birth, low birthweight, low Apgar scores, and smaller head circumference

(Marcus 2009; Kim et al 2006; Redshar and Henderson 2013; Raisanen et al 2014*)*

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Altered Child Developmental Trajectories

- ↓ cognitive development
- ↑ difficult temperament
- ↑ risk of depression in adolescence and adulthood
- ↑ risk of ADHD and conduct disorders

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Maternal Differences in Depression Onset

- In a US sample of 727 depressed women, those with postpartum onset were significantly more likely to:
  - Older
  - Caucasian
  - Educated
  - Married/cohabitating
  - Have one or no previous child
  - Have private insurance
- Than those with pre-pregnancy or pregnancy onset
- Onset of depression also linked to symptom severity

(Fisher, Wisner, et al 2016)

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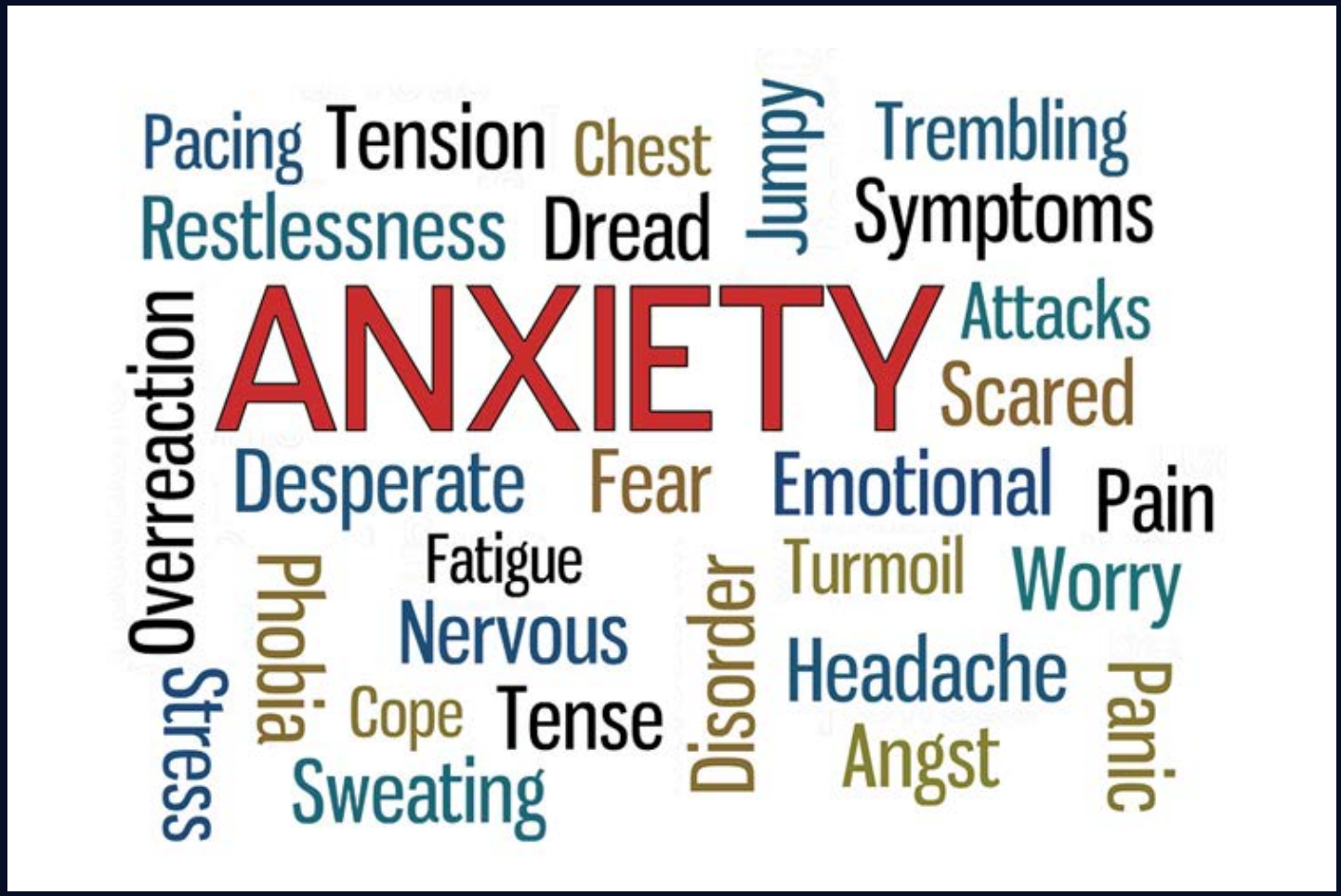
Pacing
Tension
Chest
Jumpy
Trembling
Restlessness
Dread
Symptoms
ANXIETY
Attacks
Overreaction
Scared
Desperate
Fear
Emotional
Pain
Fatigue
Turmoil
Worry
Phobia
Nervous
Disorder
Headache
Stress
Cope
Tense
Angst
Panic
Sweating

Clinical Importance of Anxiety

- A common mental health problem women experience during the perinatal period is **anxiety** → limited attention

- Significant omission → ever-growing evidence indicating maternal anxiety both antenatally and postnatally may also lead to negative outcomes for children

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Review article

Prevalence of antenatal and postnatal anxiety: systematic review and meta-analysis

Cindy-Lee Dennis, Kobra Falah-Hassani and Rahman Shiri

BJPsych | The British Journal of Psychiatry
1–9. doi: 10.1192/bjp.bp.116.187179

- We reviewed 21,464 abstracts, retrieved 783 articles, and included **102 studies from 30 different countries**

- Antenatal anxiety data = 70 studies
- Postnatal anxiety data = 57 studies

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Antenatal Anxiety

Self-Reported Symptoms

- 1st trimester = **18.2%** (95%CI 13.6.-22.8, 10 studies, N=10,577)
- 2nd trimester = **19.1%** (95%CI 15.9-22.4, 17 studies, N=24,499)
- 3rd trimester = **24.6%** (95%CI 21.2-28.0, 33 studies, N=116,720)

Overall pooled prevalence across the three trimesters was **22.9%** (95% CI 20.5-25.2, 52 studies, N=142,833)

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Antenatal Anxiety

Clinical Diagnosis of Any Anxiety Disorder

- 1st trimester = **18.0%** (95% CI 15.0-21.1, 2 studies, N=615)
- 2nd trimester = **15.2%** (95% CI 3.6-26.7, 4 studies, N=3002)
- 3rd trimester = **15.4%** (95% CI 5.1-25.6, 4 studies, N=1603)

Overall pooled prevalence across the three trimesters was **15.2%** (95% CI 9.0-21.4, 9 studies, N=4648)

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Postnatal Anxiety

Self-Reported Symptoms

- 1-4 weeks = **17.8%** (95% CI 14.2-21.4, 14 studies, N=10,928)
- 5-12 weeks = **14.9%** (95% CI 12.3-17.5, 22 studies, N=19,158)
- 1-24 weeks =**15.0%** (95% CI 13.7-16.4, 39 studies, N=145,293)
- >24 weeks = **14.8%** (95% CI 10.9-18.8, 7 studies, N=11,528)

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Postnatal Anxiety

Clinical Diagnosis of Any Anxiety Disorder

- 5-12 weeks = **9.6%** (95% CI 3.4-15.9, 5 studies, N=2712)
- 1-24 weeks = **9.9%** (95% CI 6.1-13.8, 9 studies, N=28,495)
- >24 weeks = **9.3%** (95% CI 5.5-13.1, 5 studies, N=28,244)

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Postpartum Anxiety Risk Factors

	Odds ratio	95% CI	P value
Perceived stress	5.19	2.92-9.22	<0.001
Multiparous parity	3.46	1.39-8.65	0.008
History of mental health problems	2.73	1.12-6.62	0.026
Childcare stress	1.74	1.13-2.70	0.013
Partner support	0.66	0.44-0.99	0.045
Breastfeeding self-efficacy	0.66	0.46-0.96	0.028

Dennis et al, 2016 Acta Psychiatrica Scandinavica

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Depression and Anxiety in the General Population

- Depression and anxiety disorders make up 50% of the international disease burden attributable to psychiatric and substance abuse disorders *(Whiteford et al., Lancet 2013)*

- Epidemiologic data suggests that 1 in 4 of the general population will have at least one of these disorders in their lifetime *(Pedersen et al. JAMA Psychiatry 2014)*

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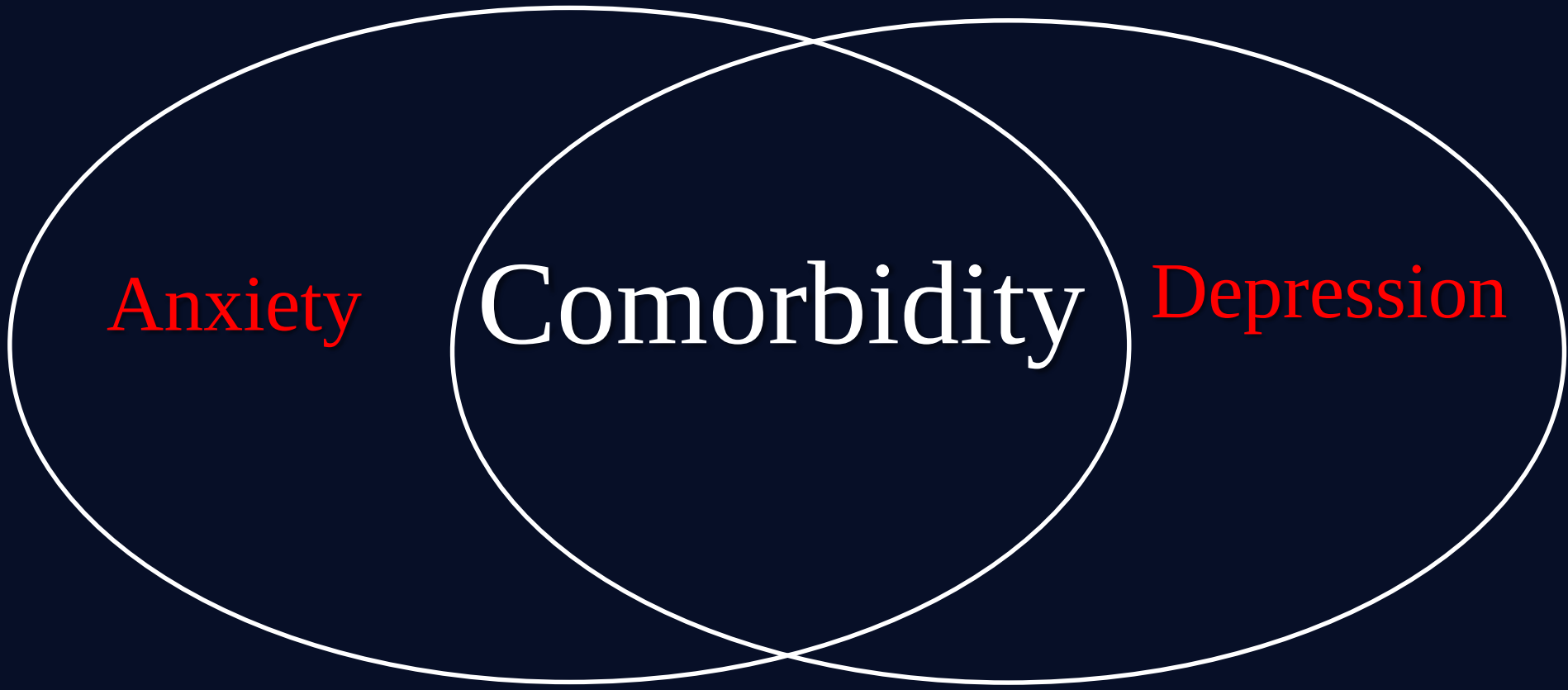
Anxiety
Comorbidity
Depression

Why is Comorbidity Important Clinically?

- More severe and persistent symptomatology
- Increased disability and impaired functioning
- Poorer response to treatment
- Increased risk to commit suicide

(Meier et al 2015; Fichtner et al 2010, Merikanges et al 2003; Kessler et al 1997; Rush et al 2005)

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What is the prevalence of comorbidity among women in the perinatal period?

Psychological Medicine, Page 1 of 13. © Cambridge University Press 2017
doi:10.1017/S0033291717000617

REVIEW ARTICLE

The prevalence of antenatal and postnatal co-morbid anxiety and depression: a meta-analysis

- Included 66 (24 published and 42 unpublished) studies incorporating **162,120** women from over **20 countries**

Antenatally

Overall prevalence of anxiety and mild to severe depressive symptoms

9.5% (95% CI 7.8-11.2, 17 studies, N=25,592)

Postnatally

Overall prevalence of anxiety and mild to severe depressive symptoms

8.2% (95% CI 6.5-9.9, 15 studies, N = 14,731)

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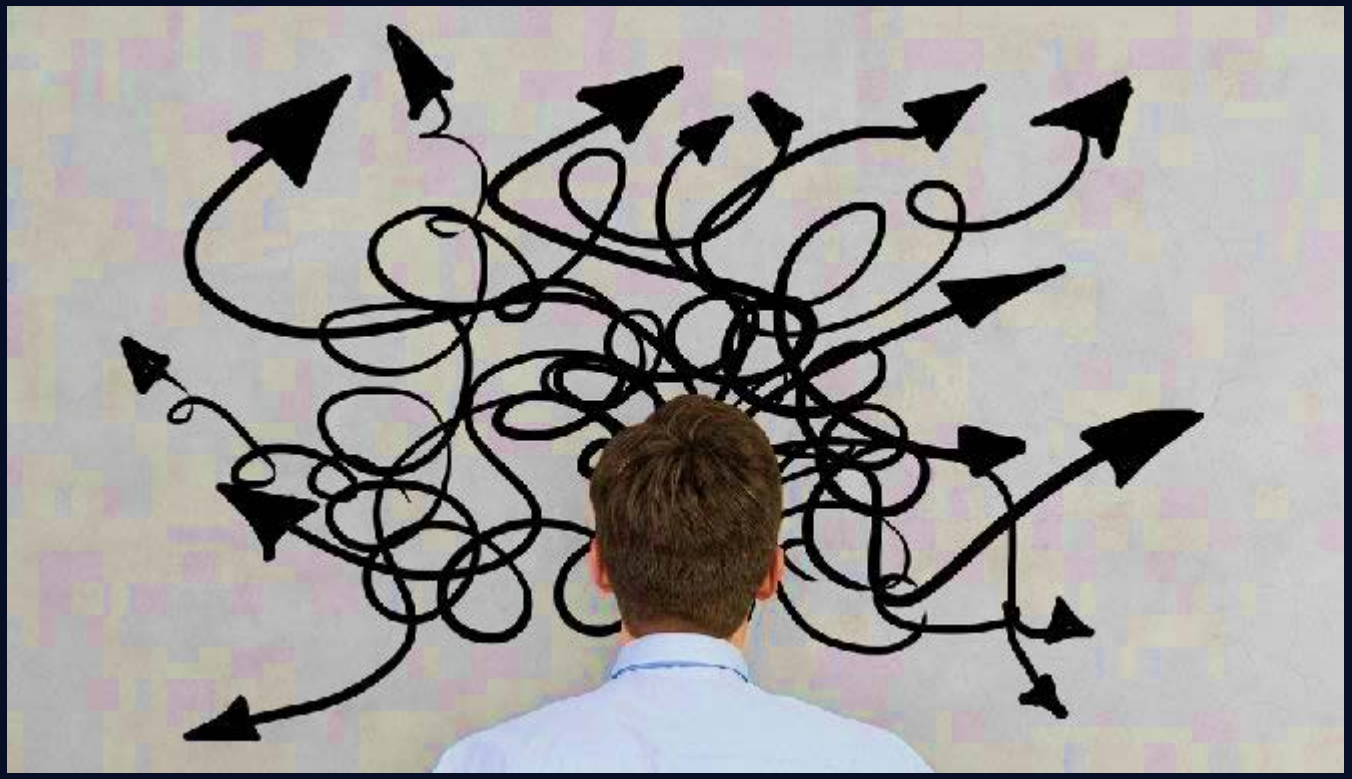
Mental health issues are the most frequent form of maternal morbidity across the perinatal period



What should we do to support women and their families?

Not only focus on individual treatment

but also include preventive approaches

to the management of depression and anxiety

Preventive Approach

- Moving beyond a model where we wait for a woman to develop major symptoms and then provide evidence-based treatment

A NEW Philosophy

- FOCUS on the long-term healthy development of mothers and their children
- PROACTIVELY provide resources to support this healthy development

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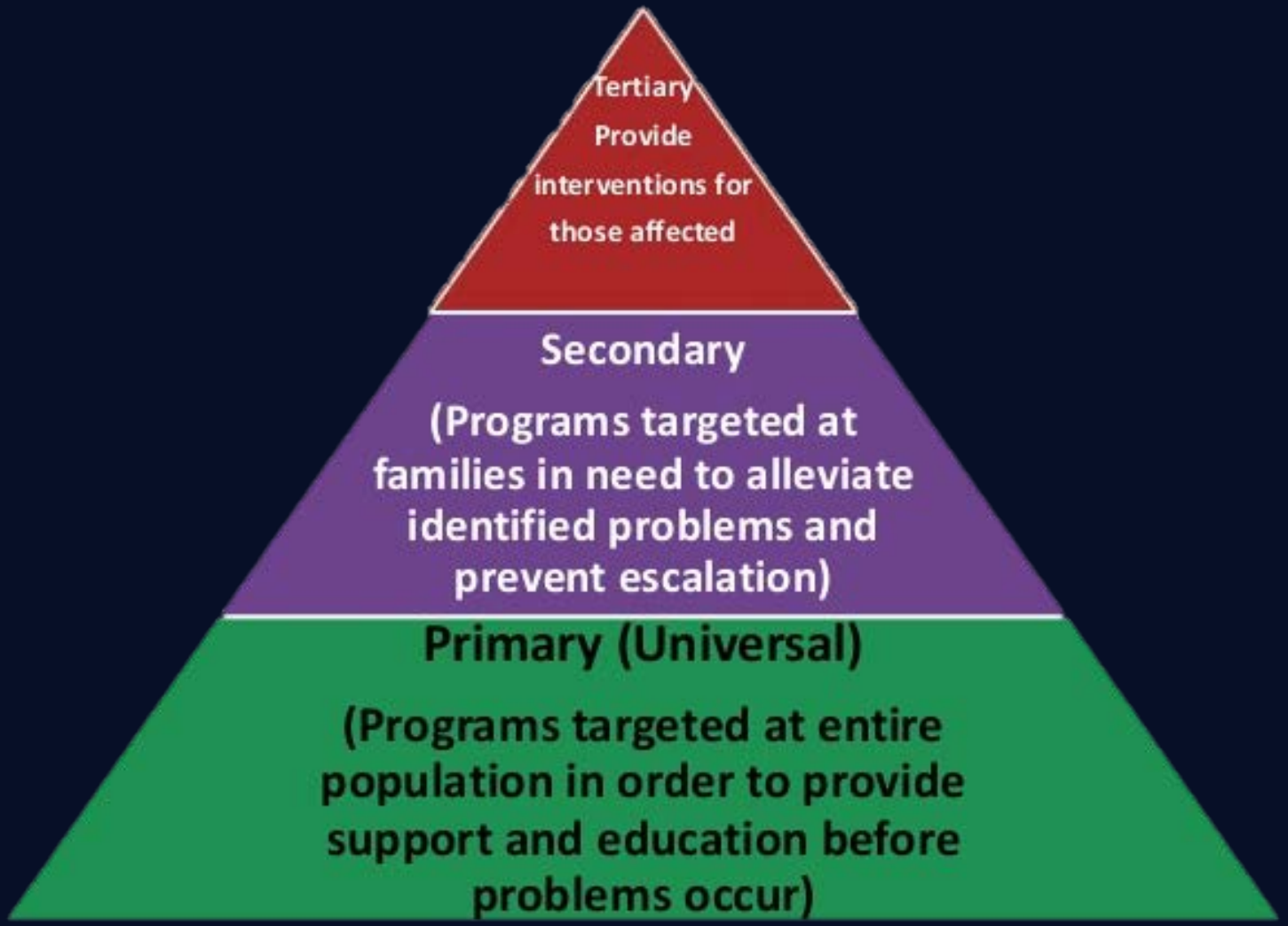
Prevention is

Simpler, Easier and Cheaper than Cure

Prevention Strategies



Primary Prevention Strategy (universal)

Alternative Interventions for the Prevention of Postpartum Depression

- To assess the effects of interventions other than pharmacological, psychosocial, or psychological interventions compared with usual antepartum or postpartum care in the prevention of postpartum depression

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Physical Activity and Lifestyle Advice

- Five trials
- Dodd 2015 (*Australia*); Huang 2011 (*Taiwan*), Lewis 2014 (*USA*), Norman 2010 (*Australia*), Songoygard 2012 (*Norway*)

- Depressive symptomatology

RR=0.87, 95% CI 0.35 - 2.14; 2 trials, n=1940

- Mean depression scores

SMD=-0.30, 95% CI -0.50 to -0.10; 3 trials, n = 387

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Physical Activity

- Consistent with previous non-perinatal research

- Systematic review of 25 trials (*Mammen &Faulkner 2013*)

  – There is strong evidence that any level of physical activity, including low levels (e.g., walking <150 minutes/weeks), can prevent future depression

Primary Prevention Strategy: Partner Support

- The importance of partner support is well established
- Partners are ideally positioned to provide consistent long term support
- Given that parents show a preference for support from their partner, strategies that target the couple relationship are likely to be beneficial *(Forsyth et al 2011; Rowe, et al 2013)*

Coparenting

Coparenting refers to the manner in which parents coordinate their childcare responsibilities and work together to achieve their jointly determined child health and development goals

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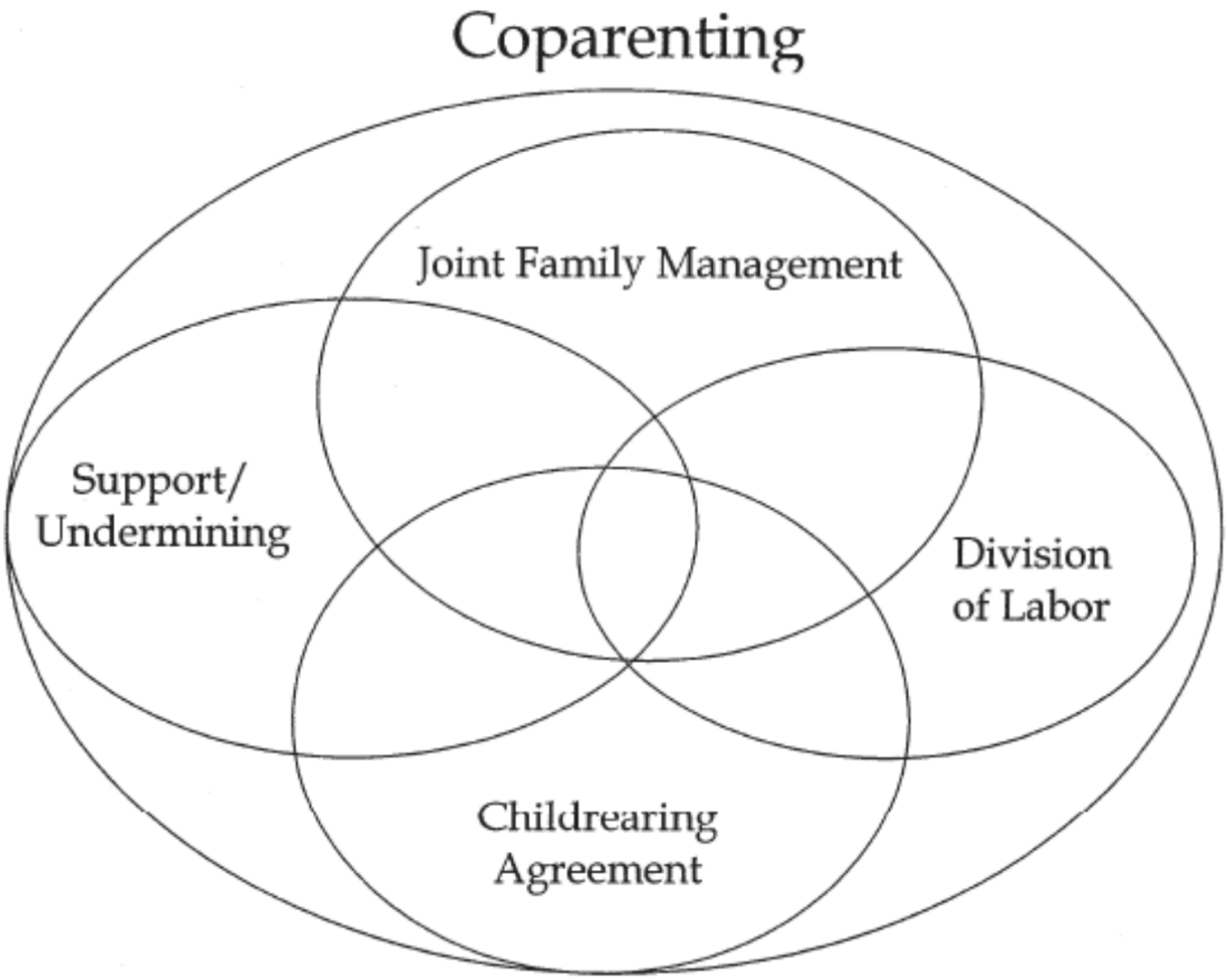
Co-parenting as a Preventive Strategy

Coparenting has been previously shown to positively affect family relationships and emotional well-being, so it is hypothesized that educating couples about coparenting may also be effective in preventing depression

Coparenting Theory - Mark Feinberg



Productive Communication and Problem Solving

In strong coparenting relationships =
Couples engage in effective communication and problem solving

- Finding solutions to conflicts helps parents form supportive, cooperative coparenting relationships

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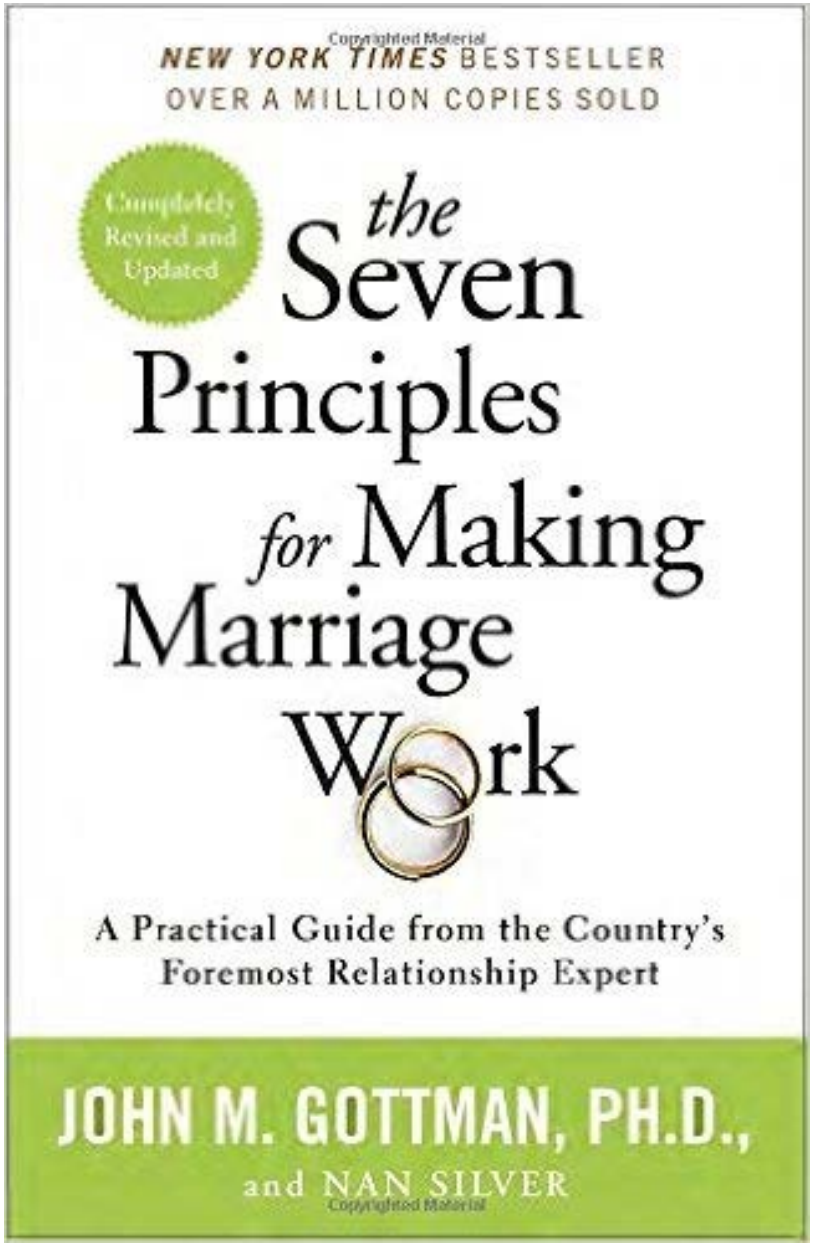

Dr. John Gottman's 7 Principles of Successful Relationships

1. Enhance your love maps. You know all of your partner's relevant information, from life dreams to favorite movies, as a best friend would.

2. Nurture fondness and admiration. You have a positive view and deep appreciation of your partner, and express it.

3. Turn toward your partner instead of away during times of stress. "You want your partner to be that confidante," Gover says.

4. Let your partner influence you. You shouldn't make important life decisions autonomously, as a single person would.

5. Solve your solvable problems. All couples have solvable and perpetual problems, but long-term couples solve those they can and understand there will always be perpetual problems.

6. Overcome gridlock. What often underlies perpetual problems are unfulfilled dreams. Talk about those dreams with the goal of making peace with the problem.

7. Create shared meaning. Develop the big and small rituals that help build the bond with your partners. Rituals range from hosting an annual party to having coffee together in the morning.

http://www.gottman.com

Coparenting breastfeeding support and exclusive breastfeeding: A randomized controlled trial (COSI Trial)

PI: Dr. Jennifer Abbass-Dick

- A multi-site randomized controlled trial
- To evaluate the effect of a Coparenting Breastfeeding Support Intervention (COSI) on breastfeeding outcomes among primiparous mothers and fathers

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Pam Pilkington

Partners to Parents: development of an online intervention for enhancing partner support and preventing perinatal depression and anxiety

Pamela D. Pilkington, Holly Rominov, Lisa C. Milne, Rebecca Giallo & Thomas A. Whelan

To cite this article: Pamela D. Pilkington, Holly Rominov, Lisa C. Milne, Rebecca Giallo & Thomas A. Whelan (2016): Partners to Parents: development of an online intervention for enhancing partner support and preventing perinatal depression and anxiety, Advances in Mental Health, DOI: 10.1080/18387357.2016.1173517

Clinical Psychologist **19** (2015) 63–75

APS Australian Psychological Society

A review of partner-inclusive interventions for preventing postnatal depression and anxiety

Pamela D. PILKINGTON, Thomas A. WHELAN and Lisa C. MILNE

School of Psychology, Faculty of Health Sciences, Australian Catholic University, Fitzroy, Victoria, Australia

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Perinatal Mental Health: A Family Affair

Paternal Depression

A meta-analysis suggests that approximately 10.4% of fathers will experience depression in the first year postpartum

(Paulson et al. JAMA 2010)

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Fathers Matter

Maternal and **P**aternal Postpartum Depression: **A**ssessing **C**oncurrent Depression in **T**he Family

(The IMPACT Study)

Funded by Canadian Institutes of Health Research

IMPACT Study

- A longitudinal study where 6400 mothers + fathers across Canada are completing online questionnaires at 3, 6, 9, 12, 18, and 24 months postpartum

35% are immigrant couples

30% are low-income couples

Adverse Childhood Experiences International Questionnaire

Diverse Child Development Measures

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Secondary Prevention = Target At-Risk Families

Cochrane Systematic Review

Cochrane
Pregnancy and Childbirth

Psychosocial and Psychological Interventions for the Prevention of Postpartum Depression:

An Update

Dennis, C-L., Dowswell, T. (2013). Psychosocial and psychological interventions for preventing postpartum depression. The Cochrane Database of Systematic Reviews, Issue 2.

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Summary

Overall, psychosocial and psychological interventions may decreased the risk of developing postpartum depression by approximately 22%

(N=28 trials, 17,000 women)

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What interventions were most successful?

Edinburgh Postnatal Depression Scale (EPDS)

Secondary / Indicated preventive interventions

Postpartum Depression Peer Support Trial

(Dennis et al . *BMJ 2009*)

Funded by Canadian Institutes of Health Research (CIHR)

Underlying Mechanisms of Peer Support

- Peer support can:
  - Increase social networks
  - Reinforce help-seeking behaviours
  - Decrease barriers to care
  - Encourage effective coping
  - Promote social comparisons
  - Increase self-efficacy
  - Aid self-esteem

Secondary Prevention: Anxiety Screening

- Good evidence to suggest that anxiety often **develops first** and then depression
- **GAD-7** (Generalized Anxiety Disorder) is a 7-question screening tool
- **GAD-2 –** part of the Ontario Perinatal Record
- **EPDS-3** (cut-off score of 6 or more)
- The three EPDS questions are:

1. I have blamed myself unnecessarily when things went wrong
2. I have been anxious or worried for no good reason
3. I have felt scared or panicky for no very good reason

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Secondary Prevention Strategy

Preconception Care

Healthy Life Trajectories Initiative (HeLTI)

- A collaboration between Canada, China, India, South Africa and the World Health Organization (WHO) to develop linked international intervention cohorts that will implement and test approaches to:

1. Prevent overweight and obesity in children and risk factors for non-communicable diseases (NCDs)
2. Improve early childhood development (ECD)

Goal: to generate evidence that will inform national policy and decision-making for the improvement of health and the prevention of NCDs throughout the lifespan

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Introduction to HeLTI Canada

TROPHIC Trial:

TRajectories **O**f healthy life using **P**ublic **H**ealth and primary care **I**nterventions in **C**anada

$17,050,000 for 10 years

A pan-Canadian team of 48 established investigators

from 21 institutions, across 6 provinces

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Primary Objectives

- To determine whether the complete 4-phase "preconception to early childhood" lifecourse intervention can by child age 5 years:

1. Reduce child overweight and obese states
2. Improve child cardiometabolic risk factors
3. Enhance child development and school readiness

(**Objective 1**)

4. Positively impact **parental** outcomes (**Objective 2**)

HeLTI Canada

Cumulative-Impact

- Preconception phase on **parental** outcomes at the time of conception (**Objective 3**)
- Preconception + pregnancy phases on adverse **pregnancy** outcomes (**Objective 4**)
- Preconception + pregnancy + infancy phases on **child** outcomes at age 2 years (**Objective 5**)

HeLTI Canada

- A randomized controlled multicenter trial
- **5230** women planning (intending) to get pregnant
- **786** nulliparous (15%) and **4444** primiparous (85%) women and their partners
- These women will be randomly allocated in a 1:1 ratio to the 4-phase intervention or to usual care
- An “index child” conceived after randomization (n = **3660**; 70%) will be followed until age 5 years and assessed for the primary and secondary outcomes

HeLTI Canada

Why Primarily Primiparous Women?

- Statistics Canada suggests Canadian women have approximately 1.7 children with an average inter-pregnancy interval of 24 months

- The Canadian population with the largest preconception needs are those who have recently had a first child and are likely to have a second child within 2-3 years (primiparous women)

HeLTI Canada

Why Pregnancy Planning Women?

Clinical Practicalities

- These are the women who can be motivated to participate in a ‘real world’ preconception program

HeLTI Canada

Preconception-Early Childhood Lifecourse Intervention

Defining Attributes

- Professionally-facilitated
- Proactive
- Individualized
- Will target women AND their partners
- Multifaceted
- Build on existing research and clinical resources while recognizing the growing trend of e-Health
- Local stakeholders, such as public health nurses, will participate in providing the intervention to ensure it is tailored to local circumstances
- Among primiparous women, we will also provide information to address concerns with the sibling child with the goal of taking a family-approach to care

HeLTI Canada

Intervention Phases

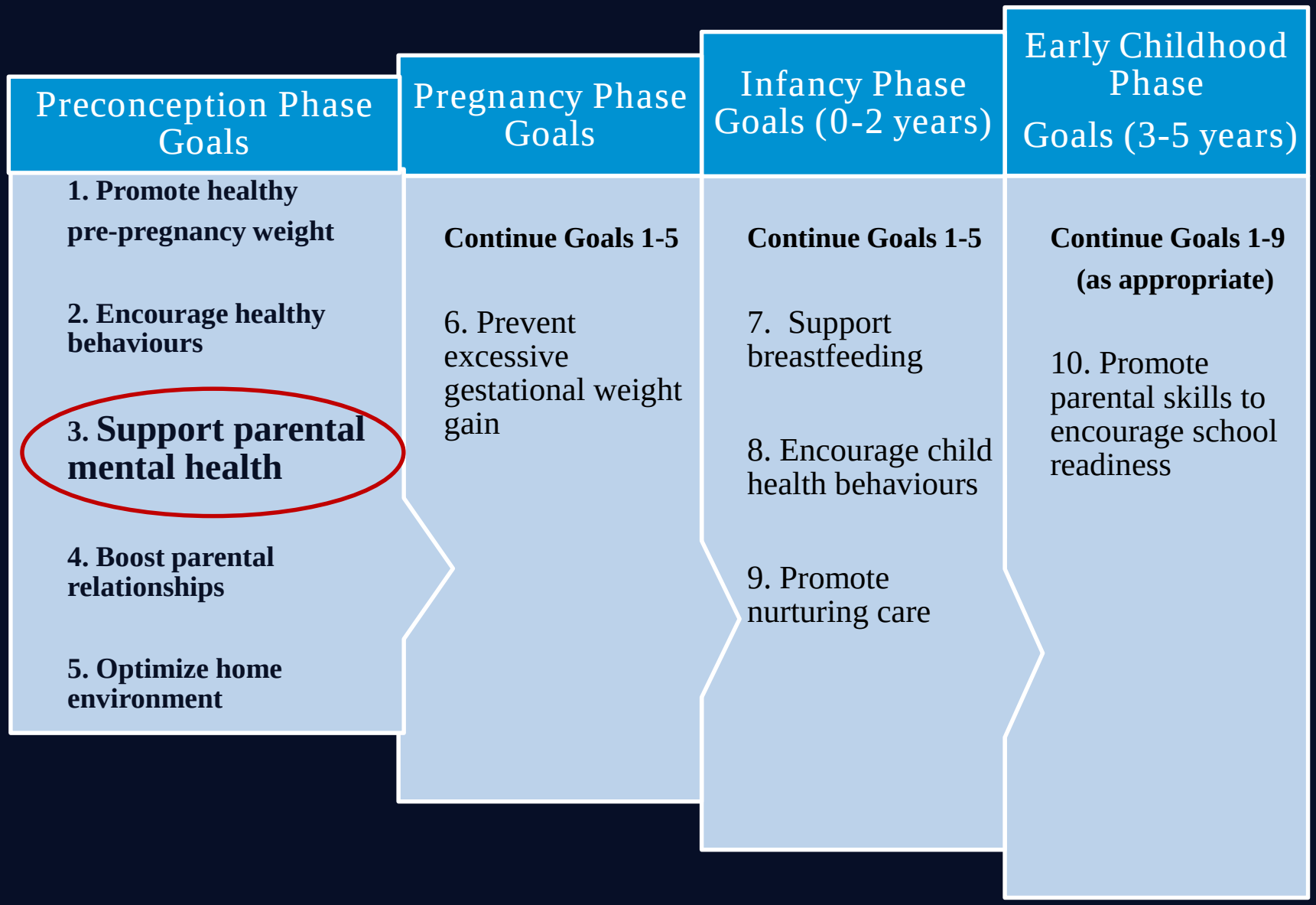
- The intervention will be provided in 4 phases:

1. Preconception
2. Pregnancy
3. Infancy [0-2 years]
4. Early childhood [3-5 years]

- Each phase has time-sensitive goals based on child obesity risk factor meta-analyses

HeLTI Canada

Phase-Specific Goals and Activities



Core Intervention Strategies

1. **Public health nurse collaborative care**
2. **Individualized e-health cloud platform** *that includes web-based resources and multi-platform interventions*
3. **A preconception-lifecourse app** *with monthly notifications and other social media activities (Facebook, Twitter, Google+)*

Comprehensive, personalized, multifaceted intervention

HeLTI Canada

Our intervention, with its foundation on public health and primary care platforms and e-Health technologies, is structured to facilitate scalability across Canada, if effective.

Management of Perinatal Mental Health

Case Identification

- The first step in the management of antenatal depression is case identification

- Research consistently demonstrates that **informal surveillance is imprecise** with less than 50% of mothers with perinatal depression identified despite various interactions with health professionals *(Yawn et al 2012; Goodman & Tyer-Viola, 2010)*

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There is NO screening utopia!

Edinburgh Postnatal Depression Scale

(EPDS)

- 10-item self-report instrument
- Scores range from 0 to 30
- Cut-off 12/13 (> 12) – probable depression
- Cut-off 9/10 (> 9) – possible depression
- Widely available and free

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Research is Clear

Screening alone is insufficient

to ensure the provision of appropriate treatment

and thus ultimately improving clinical outcomes

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The Perinatal Mental Health Toolkit

- An online suite of modules that can help guide public health practitioners toward the latest evidence-based practices and tools in perinatal mental health
- It covers topics important to building a comprehensive perinatal mental health strategy such as:
  - Situational assessment
  - Surveillance and population health assessment
  - Community education and awareness
  - Building public health care pathways

Support by Public Health Ontario

Barriers to Mental Health Care

With ↓ stigma and ↑ awareness and detection there is an ever-growing need for mental health care

1. **Organizational barriers**= a shortage of mental health providers particularly in rural and low income counties
2. **Provider barriers** = discomfort with assessing and treating mental health conditions, lack of resources, time constraints, and burnout
3. **Patient barriers** = cost, distance to providers, lack of English proficiency, and discomfort with disclosure

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E-Mental Health

- E-Mental health has tremendous potential to address the **gap** between the identified need for mental health services and the limited capacity to provide conventional care

- Four areas of mental health service delivery:
  1. Provision of information
  2. Screening, assessment, and monitoring
  3. Intervention
  4. Social support

Primarily based on its ability to improve "**reach**"

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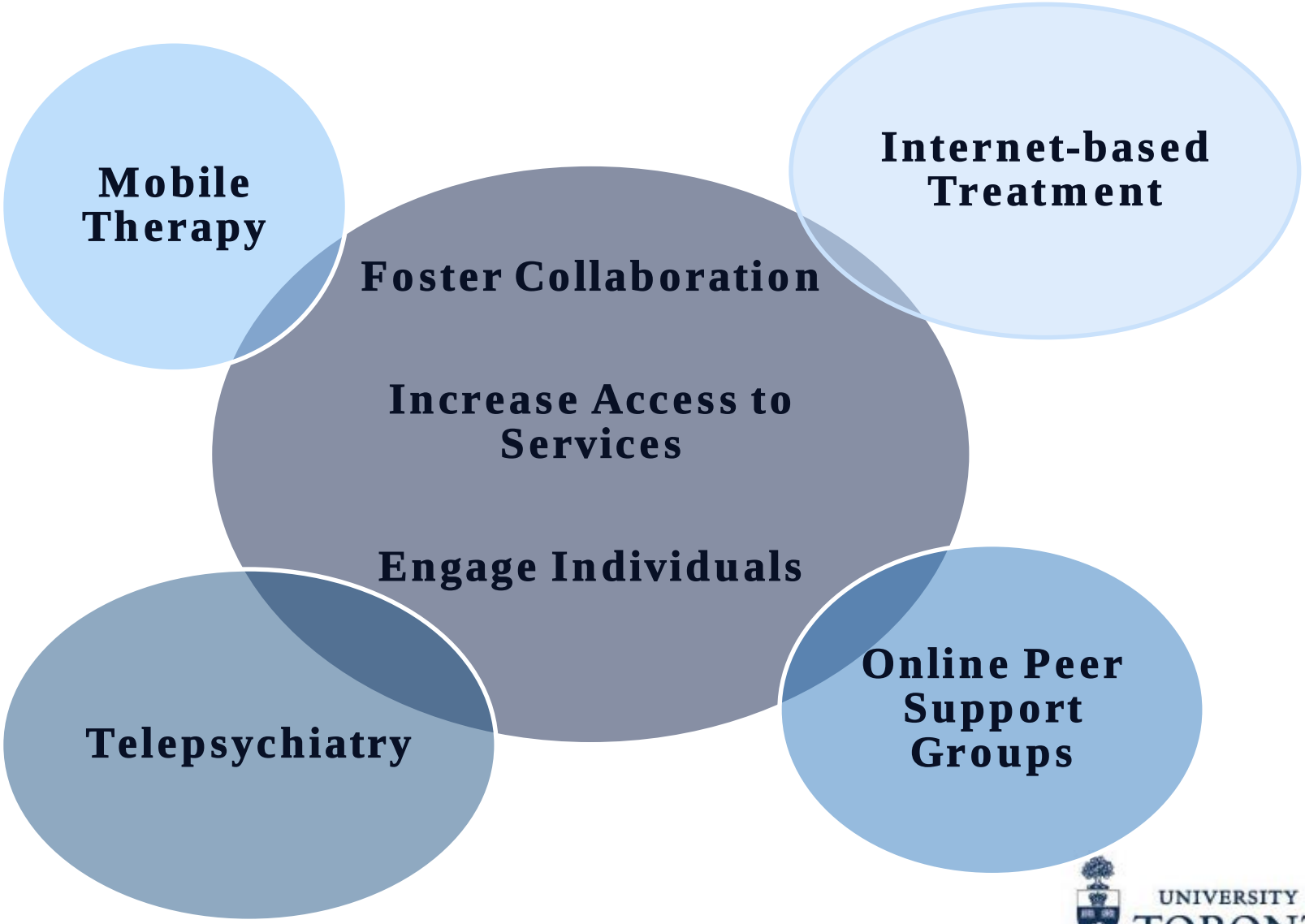
Technologies Transforming Mental Health



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Interpersonal Psychotherapy Trial

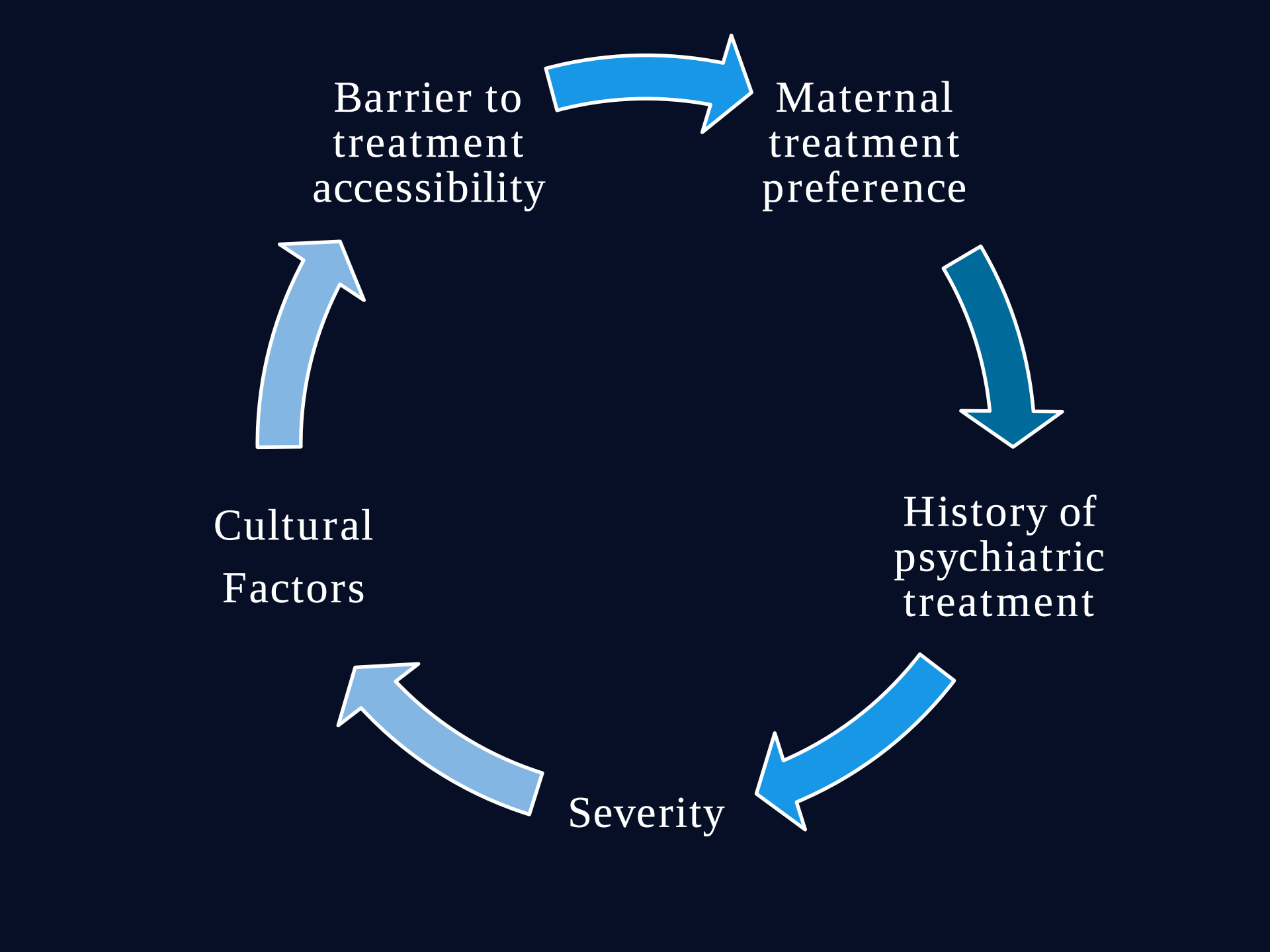
Telephone-Based Interpersonal Psychotherapy for the Treatment of Postpartum Depression

Funded by Canadian Institutes of Health Research

Outstanding Clinical Problem

While effective treatment *tools* exists for PPD……

Adequate treatment = treatment to remission


Barrier to treatment accessibility
Maternal treatment preference
History of psychiatric treatment
Severity
Cultural Factors

New treatment *approaches* are required to address the GAP between the existence and uptake of effective PPD treatment tools

Collaborative Care

- "Collaborative care" is an *approach* to treatment that is highly effective for the management of general depression

- In a collaborative care model, case identification occurs at the primary care level

- A depression care manager directs individuals to appropriate treatment and monitors progress – all in collaboration with a mental health specialist

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Treatment Follow-Up

- Part of the success of this approach is that it actively promotes treatment initiation and adherence while addressing patient preferences and perceived barriers

- Also ensures appropriate follow-up and treatment to remission

Evaluating Collaborative Care for **P**ostpartum **D**epression in Primary Care **S**ettings

(EPDS Trial)

Funded by CIHR

Design Overview

- Randomized controlled trial
- Telephone-based collaborative care intervention for PPD
- Diverse maternal and infant outcomes
- Mothers between 0 to 6 months postpartum with depressive symptomatology (EPDS >9)

Identified during well-child visits in eight primary care practices across Toronto

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Summary

- Prevalence depression, anxiety, comorbidity
- Risk factors and immigrant women specifically
- Need to address perinatal mental health across perinatal period
- Proactive not reactive
- Prevention –exercise groups, coparenting, peer support
- Discussed preconception health and introduced HeLTI Canada
- Healthy Human Development Table and the toolkit as a strategy to provide a more systematic approach to care
- Treatment – use of technology to increase ‘REACH’

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Mothering Transitions RESEARCH

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