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Public Health Nurse(PHN)-Delivered Group Cognitive Behavioural Therapy (CBT) for Postpartum Depression (PPD)

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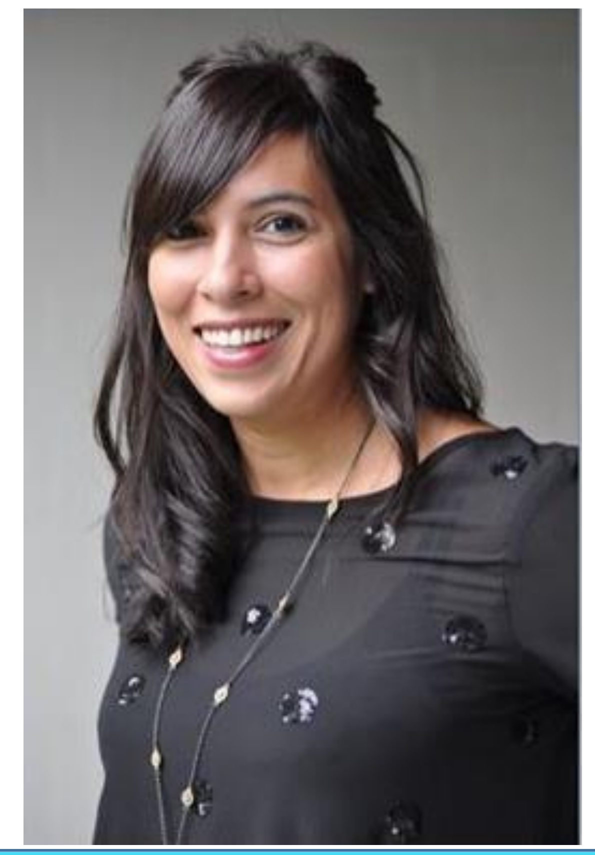
Introductions



Polling Question 1

Based on your experience, which of the following are the **most significant** barriers for individuals with postpartum depression to access treatment?

- ❑ *Lack of awareness of treatment options*
- ❑ *Fear/Stigma*
- ❑ *Limited availability of non-pharmacological treatment options*
- ❑ *Financial*
- ❑ *Accessibility of services (i.e. time, location, childcare)*
- ❑ *No primary care provider*
- ❑ *Other (specify)*

Polling Question 2

Which of the following are the **most significant** barriers within your agency to treat and support individuals with postpartum depression?

- ❑ *Limited staff knowledge/skills to assess severity of postpartum depression in individuals*
- ❑ *Limited awareness of evidence-based non-pharmacological treatment options*
- ❑ *Limited staff knowledge/skills to deliver treatment options*
- ❑ *Limited staff capacity to deliver treatment interventions*
- ❑ *Not aligned with agency priorities*
- ❑ *Limited financial resources to support costs associated training, planning, promotion and delivery of interventions*

Polling Question 3

It is within the role and scope of a public health nurse to deliver group-based cognitive behavioural therapy for postpartum depression.

- ❑ *True*
- ❑ *False*

Objectives

By the end of this session, participants will be able to:

- Describe the prevalence and impact of postpartum depression (PPD) on birthing parents and families
- Understand the treatment effects public health nurse(PHN)-delivered group Cognitive Behavioural Therapy (CBT) for PPD has on maternal depression, anxiety, and the mother-infant relationship
- Describe the potential benefits of CBT training for PHNs beyond group delivery alone
- Understand how evidence-based public health interventions can be collaboratively integrated into practice after the research phase

Overview

1. Postpartum Depression: Scope and Need
2. Task-Shifting CBT for Postpartum Depression (PPD)
3. Randomized Controlled Trial (RCT) of PHN-Delivered Group CBT for PPD
4. Impact of CBT Training on PHNs
5. Translating Research Findings into Practice

PPD Scope and Impact

- PPD affects 1 in 5 mothers/birthing parents[1]
  - ↑ risk of later depressive episodes, relationship problems, and cognitive, emotional, and behavioural problems in offspring[2]
  - A single case costs as much as $100,000 across the lifespan[3]
  - Just 10-15% of individuals with PPD can access evidence-based care[4]

1.Gavin et al. Obstet Gynecol. 2005;106(5):1071-83.
2.Slomian et al. Womens Health (Lond). 2019;15.
3.Bauer et al. PSSRU Discussion Paper DP2913 September 2016;1-64.

4.Ko et al. J Women'S Heal. 2012;21(8):830-836.

In Niagara . . .

- With approx. 4000 births per year
  - Estimated that up to 800 postpartum individuals may experience PPD annually
  - Higher rates of self-reported “history of mental illness” in Niagara compared to Ontario (per Healthy Babies Healthy Children postpartum screen)

Year	% client or partner with hx of mental illness (Ontario)	% client or partner with hx of mental illness (Niagara)
2019	19.1	31.6
2020	18.4	29.1

Source (Ontario): PHO Snapshots (https://www.publichealthontario.ca/en/Data-and-Analysis/Reproductive-and-Child-Health/Healthy-Child-Development)

Source (Niagara): ISCIS Reporting Sub System, extracted locally Feb 2022

Care Barriers (and Solutions)

- Numerous barriers to care exist
  - Long waitlists for OHIP-insured services, preferences for psychotherapy, concerns about antidepressant prescription, etc.

Task Shifting: the process of delegation whereby services are moved from specialized (costly) experts to those with less training (and cost)

- PPD is ideal for task shifting since structured psychotherapies can be effectively delivered by those with little to no prior training

Task Shifting PPD Care to PHNs

- PHNs are a frequent first point of contact for those with PPD (and frequently provide care)
- Registered Nurses (RNs) are the preferred non-specialist provider of non-pharmacological treatments for PPD[5]
- RNs are authorized by the Regulated Health Professionals Act to provide the controlled act component of psychotherapy
- PHNs feel that their role should involve PPD management (especially counselling interventions)[6]

5. Singla et al. JMIR Ment Heal. 2020;7(8):e19271.
6. Segre et al. Am J Matern Nurs. 2010;35(4):220-225.

Nurse-Delivered Psychotherapy for PPD

- Numerous studies of psychotherapy for PPD have included highly trained RNs as therapists[7-11]
- Almost invariably these were individual treatments (e.g., Interpersonal Therapy (IPT) for PPD)[12]
- Only one study involved group therapy,[11] but these RNs had previous training

7. Murray et al. Br J Psychiatry. 2003;182:420-427.
8. Milgrom et al. J Affect Disord. 2011;130(3):385-394.
9. Morrell et al. Br Med J. 2009;338-(7689):276-279.

10. Prendergast et al. Aust Psychiatry. 2001;9(3):255-259.
11. Honey et al. Br J Clin Psychol. 2002;41(4):405-409.

Group Cognitive Behavioural Therapy for Postpartum Depression

- CBT is an evidence-based treatment for PPD
- Its structured and manualizable format makes it ideal for task shifting and scaling
- Group CBT is more cost-effective, has the potential to treat more mothers, and has greater potential for scaling than individual treatment

Research Objectives

1. To determine if RNs in public health settings with **no prior formal psychiatric training** can deliver effective **group** CBT for PPD
2. Assess the impact of PHN training on nurses' professional roles and personal lives
3. If effective, to determine if PHN-delivered group CBT for PPD can be translated into standard public health practice

Study 1: Effectiveness RCT[12]

Study Design: RCT of group CBT plus TAU vs. TAU alone

Sample: Mothers >18 y.o., infants <12 m.o., EPDS≥10

Outcomes: PPD (EPDS, MDD diagnosis), Anxiety, Social Support, mother-infant relationship

TAU = Treatment as Usual
EPDS = Edinburgh Postnatal Depression Scale
MDD = Major Depressive Disorder
PSWQ = Penn State Worry Questionnaire

12. Van Lieshout RJ, Layton H, Savoy CD, Haber E, Feller A, Biscaro A, Bieling PJ, Ferro MA. Can J Psychiatr. 2022 Jan 21:7067437221074426. doi: 10.1177/07067437221074426.

Results

Sample: 141 mothers were randomized

(70 tx, 71 control)

Demographics	Experimental group		Control group	
N	57	(48%)	62	(52%)
Age, years (SD)	31.4	(4.9)	30.4	(4.7)
Infant age, months (SD)	5.2	(2.8)	5.8	(3.6)
Avg. number of children (SD)	1.7	(0.7)	1.8	(1.4)
More than 1 child (%)	26	(57%)	22	(43%)
Marital Status (% married/common law)	44	(96%)	49	(91%)
Years of Education (SD)	17.7	(3.5)	18.2	(3.3)
Household Income, 2019 CAD (SD)	$77,663	($42,052)	$81,342	($43,900)
Current Antidepressant Use	15	(33%)	13	(24%)
Prior use of psychotherapy	16	(35%)	13	(24%)
MDD (Current)	38	(67%)	(44%)	(65%)
Psychiatric Comorbidity (Two or more current disorders on MINI)	31	(54%)	27	

Postpartum Depression (EPDS)

Edinburgh Postnatal Depression Scale Score

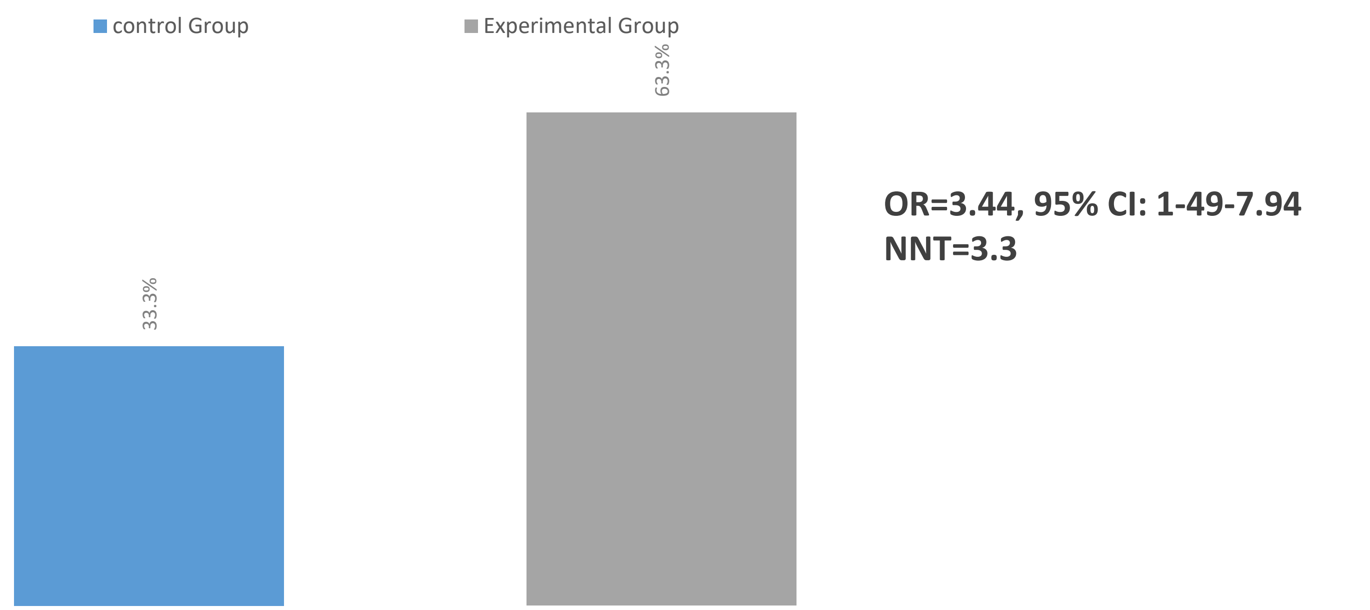
18
16
14
12
10
8

Baseline
9 Week Follow-up
6 Month Follow-up

Treatment
Control

Change from T1 to T2: 5.27 points

Postpartum Depression (EPDS Change ≥4)



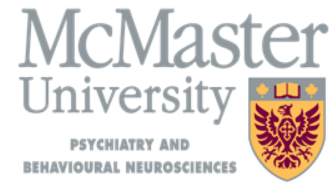
Postpartum Depression (MINI)

% MDD DIAGNOSIS BY GROUP OVER COURSE OF TREATMENT

control Group | Experimental Group

	control Group	Experimental Group
PRE-TREATMENT	64.5%	66.7%
POST- TREATMENT	65.0%	25.1%

OR=5.31, 95% CI: 1-78-15.83
NNT=2.5



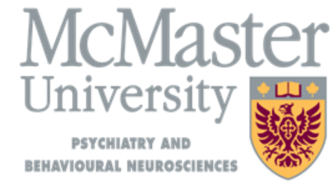
Anxiety (PSWQ)

Penn State Worry Questionnaire Score

66
64
62
60
58
56
54
52
50

Baseline
9 Week Follow-up
6 Month Follow-up

Treatment
Control



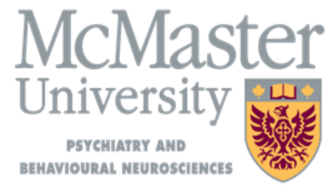
Mother-Infant Relationship (Bonding)

PBQ- Bonding

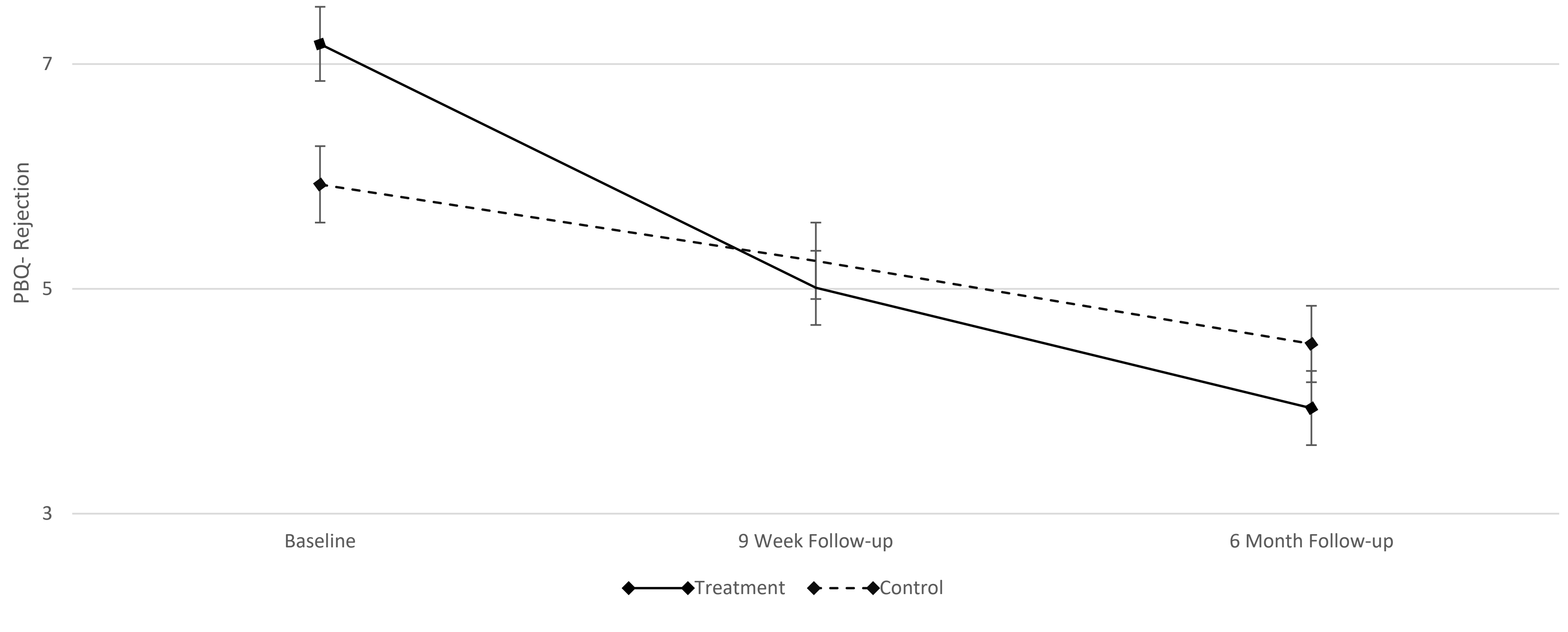
15
13
11
9
7

Baseline
9 Week Follow-up
6 Month Follow-up

Treatment
Control



Mother-Infant Relationship (Rejection/Anger)



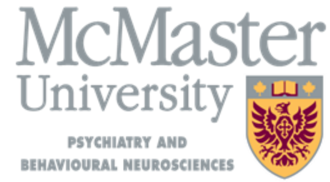
Mother-Infant Relationship (Infant-Focused Anxiety)

PBQ- Anxiety

6
5
4
3
2

Baseline
9 Week Follow-up
6 Month Follow-up

Treatment
Control



Study 2: Impact of Training on PHNs[13]

- Sample: Six PHNs who completed CBT training and delivery
- Design: Qualitative study (phenomenological approach)
  - Focuses on summarizing experiences into their universal essence and describe what a group has in common as they experience a phenomenon
- Interviews: In-depth, semi-structured interviews (40-60 mins)

13. Layton H, Bendo D, Amani B, Bieling PJ, Van Lieshout RJ. Public Health Nursing. 2020; 37: 863-870.

CBT Training

Stage I	Pre-training readings and a 3 day-long active, skills-based training program
Stage II	Observation of a full course of the CBT for PPD group with a 1-hour debrief following each session
Stage III	Delivery of a group in the community

- Sessions were audio-recorded
- 2 hours of psychotherapy supervision provided after each session
- Supervision focused on fidelity and adherence to the CBT model

Sample Interview Questions

- Describe the benefits and drawbacks of the CBT training
- How has your professional PHN work (in and outside of group) been influenced by the training?
- Did you use the CBT skills in your personal life? If so, how?
- How has the CBT training affected your work quality, satisfaction, and confidence?

Professional benefits experienced by nurses

- More confidence, feelings of empowerment
- Greatly enhanced skill set across all professional roles (CBT, breastfeeding, parenting programming, etc)
- Promoted a more client-centered approach (less unidirectional, more listening, shift from ‘rescuer role’)

Professional benefits experienced by nurses cont’d

- Clients are there for psychotherapy not parenting information
- Demonstrating qualities such as compassion, empathy, and a non-judgmental, client’s more likely to seek out HCP again

“You know when you should be listening and not giving out information even. Because we tend to give, give, give, give as nurses… sometimes you just have to sit back and listen and I’m more in tune to that role now”

Impact on Personal Lives

- Effectively cope with challenging circumstances at work and at home
- More active listeners
- Improved interpersonal relationships
- Assisted with setting of healthy boundaries

"I realize that I do balanced thoughts all day long just to get through the day. I've noticed that if I had something that's just sitting there and I can't get past it and it's bothering me so much I'll do a thought record."

Implications for Public Health Practice

- Shifting public health practice from information provision to skill-building

  "You really need to take a look at the future of public health and what our roles are. We have to do more than just teaching, it has to be skills development, it has to be community capacity… because information is everywhere, and information didn't used to be everywhere before."

- PHNs felt that the CBT training should be made available to anyone in public health with similar roles

Next Steps: CBT Research & Training with PH

- Integration into Repro/Child Health programming
  - Additional PHNs to be trained at Niagara Region Public Health to deliver groups
- Adaptation for at risk clients (young moms) in partnership with Strive Niagara
- NEW Study underway – 1 day workshop
- Expansion of CBT training (in attenuated form) to all nurses in the Family Health Division (2-Day training program):
  - Basics of CBT, handling client resistance, working with difficult clients

Translation into Public Health Practice

Translating **research to practice** involved:

- Presenting evidence of impact and need to decision makers
- Consultation with research team
- Establishing eligibility criteria, registration process, promotional needs, procedure(s) related to delivery and follow up, materials needed, ongoing CQI/evaluation plan
- Soft launch

Implementation to date:

Since launch of local implementation of the 9 week group CBT series “Steps to Wellness Before and After Baby” in September 2021:

- **Three 9 week series completed**; Two series in progress at present
- **43 unique participants** have been able to access group based CBT for PPD delivered by Niagara Region Public Health
- **High retention** of clients throughout series

Discussion: General Summary

- PHNs with little to no prior psychiatric training **can** deliver effective Group CBT for PPD to improve depression, anxiety, and the mother-infant relationship
- The benefits of CBT training extends beyond groups to the professional and personal lives of PHNs
- Group CBT for PPD can be delivered in public health practice beyond the study context

Study 1: RCT Results

- The magnitude of improvements in PPD seen are comparable to other treatments delivered by experts[14,15]
  - These persisted to 6 months post-group
- Its positive impact on anxiety suggests that it could help those with PPD and Postpartum Anxiety (PPA)[15]
- Stable improvements in the mother-infant relationship were also seen, highlighting its potential cost-effectiveness

14. Sockol LE. J Affect Disord. 2015;177:7-21.
15. Sockol LE. J Affect Disord. 2018;232:316-328.

Improving Access and Care

- PHN-delivered group CBT for PPD can:
  - Increase access
  - Reduce waitlists
  - Be up-scaled
  - Be delivered online
  - Benefit both mothers and their families

Study 2: Benefits for PHNs

- Increased confidence with early recognition, assessments
- Improved client centred care and support
- Enhanced therapeutic relationships
- Explore barriers to utilizes evidence informed strategies
- Increased follow-up care (e.g., infant feeding appointments, Niagara Parents)
- Continued professional development (personal)

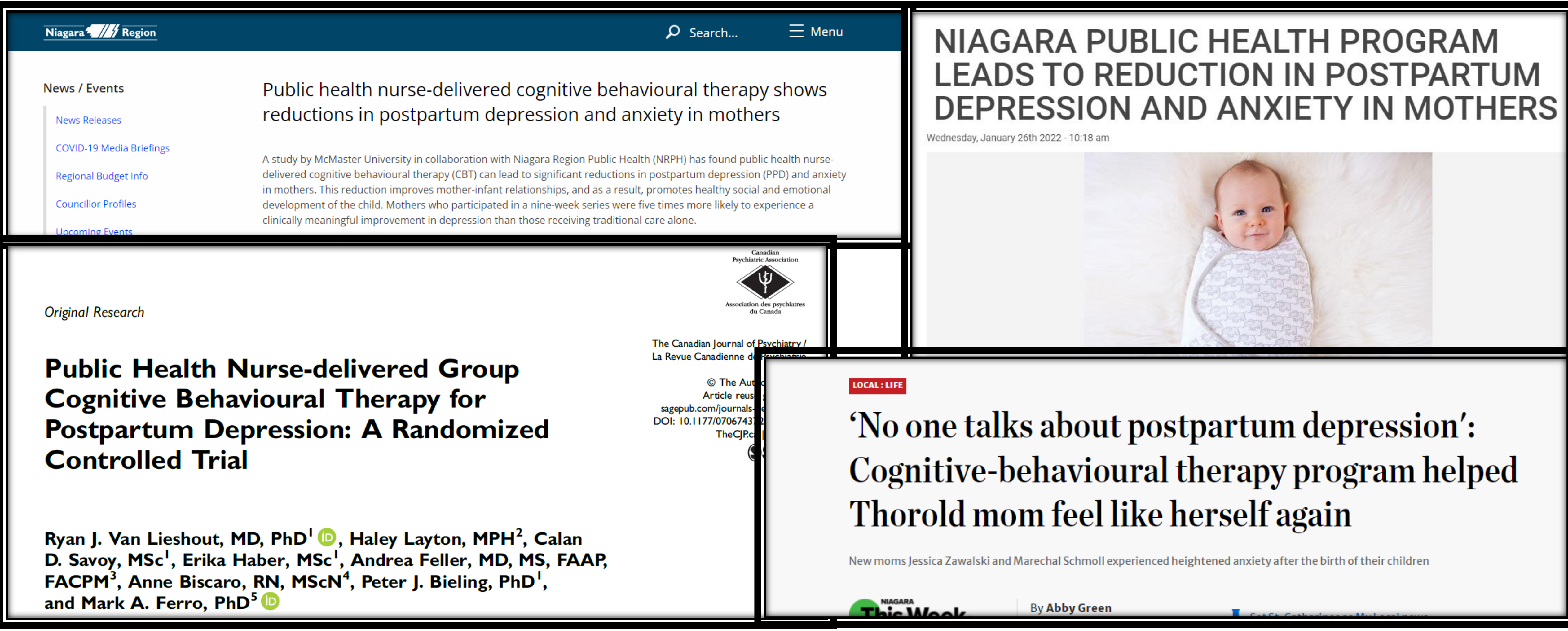
Translation into Public Health Practice

Successful implementation has depended on buy-in, retention of trained PHNs, continued support/partnership with research team, dedicated resources

What's next?

- Refine processes to deliver group CBT for PPD
- Implementation of quarterly booster sessions
- Training additional PHNs to deliver intervention
- Ongoing reflective practice and clinical consultation
- Ongoing monitoring, and continuous quality improvement
- Continued research partnership (1 day workshop)
- Support CBT skill development for PHNs in Family Health programs (i.e. home visiting)

Publications/News



Powerful Partnerships

- Collaborations between public health practitioners and University researchers can **enhance practice and research**
- **Common goals** and perseverance are key
- Open **communication** and a focus on common objectives enhance the work

Conclusions

- Postpartum depression has significant negative impacts on maternal and infant outcomes
  - Typical treatment options are costly, not easily accessed, and/or not preferred
- Public Health Nurses can effectively deliver group-based CBT for postpartum depression
  - Benefits to participants, infants, and PHNs
- Partnerships between research facilities and public health units can be mutually benefitting and highly impactful

Questions?

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