



Faculty of  
**Medicine**

Department of  
Family Medicine

Faculté de  
**médecine**

Département de  
médecine familiale

McGill Refresher Course 2021  
Workshop

# Research in the family physician office

Pierre Pluye MD PhD Professor

<https://www.mcgill.ca/familymed/pierre-pluye>

# DISCLOSURE

In the 1990s: “Médecin de campagne”

Now: Full time researcher with MD licence and FM certificate (CMQ)

I gratefully acknowledge my research sponsors:


- Canadian Institutes of Health Research (CIHR)
- Quebec SPOR Support Unit (CIHR)
- National Research Council of Canada (NRC)
- Professional/philanthropic agencies (CMA company, Naître et grandir)





## LEARNING OBJECTIVES

As a result of attending this session, participants will be able to:

- Define family medicine research
  - Describe the departmental research infrastructure
  - Distinguish types of involvement in family medicine research
- 

## CONTEXT

- *World Organization of Family Doctors (WONCA) Research Working Group*: Involve all family practices in generating new knowledge
- *In Canada*, multiple strategies (FRQ-S, CFPC, CIHR, ...): Increase research capacity in departments of family medicine

## PLAN

1. Definition of family medicine research (video)
2. Description of our research community
3. Example of a research journey in the family physician office
4. Discussion: share your experience



# 1 pre-workshop question

Since I graduated as a family physician, I contributed to family medicine research as (check all that apply):

- Principal investigator, i.e., project leader
- Co-investigator, i.e., involved at all stages
- Collaborator, e.g., recruiting participants
- Research participant, e.g., survey respondent
- Other type of contribution to research
- I never contributed to a research project
- I prefer not to answer (or not applicable)



**PART 1**  
**Definition of**  
**family**  
**medicine**  
**research**

Source: North American Primary Care  
Research Group (NAPCRG)

<https://www.napcrg.org/resources/getting-started-in-primary-care-research/>

# To learn more about Family medicine research

Akman M, Wass V, & Goodyear-Smith F. *How to do primary care research: A practical guide (1st Edition)*. CRC Press, 2021.

**eBook available online at McGill Libraries.**

1. Go WorldCat:  
[mcgill.on.worldcat.org/v2](https://mcgill.on.worldcat.org/v2)

2. Search “How to do primary care research”

3. Click on “View eBook”

4. Login (McGill username and password)


5. Read online or save as PDF to read offline.



Voir livre numérique

[Signaler un lien brisé](#)

## HOW TO DO PRIMARY CARE EDUCATIONAL RESEARCH a practical guide.

 Livre numérique 2021  
[S.l.] : CRC PRESS, 2021.

Sommaire: **Primary care** is a rapidly growing academic branch of learning and developing its own body of **research** is the hallmark of a maturing academic discipline. This practical guide is the first

Voir plus 

 Disponible  
McGill University Library

## PART 2

# Description of our research community

Research in family medicine will address questions that have major positive impacts on the health of the population!



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Dr Marion Dove, Chair



# Looking for research collaboration?

Contact: [research.fammed@mcgill.ca](mailto:research.fammed@mcgill.ca)

- “Every day in family medicine clinics, questions are asked that remain unanswered because research in the community is logistically challenging and because the academic infrastructure is less well developed.”
- “Our internationally recognized scientists are interested in topics related to health promotion, prevention, diagnosis, treatment and management of health problems such as multi-morbidity, also family and community interventions, and the organization of care, e.g., Continuity, Coordination and Comprehensiveness of care (3 pillars of quality).”

Dre Marion Dove



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[a](mailto:bertrand.lebouche@mcgill.ca)

**Do you know family medicine residents who wish to contribute to family medicine in clinical practice and other ways?**

If you answered yes, ask them to contact the **Clinician Scientist Program - Academic (CSP-A)**

- 3rd year of residency training providing the skills for an academic career in family medicine
- Paving the way to a career as a clinician-scientist in which at least 50% of time is devoted to research

We also offer the **Clinician Scientist Program - Research (CSP-R)**. The CSP-R is a 2-year program (third and fourth years of residency) designed to train you in a more advanced skill set.

**“OUR RESEARCH COMMUNITY** is committed to advancing family medicine and primary care through the rigorous and relevant creation of original scientific evidence to fill important knowledge gaps.”

### **Development and use**

- of different research methodologies
- valuing both qualitative and quantitative data
- involving numerous stakeholders

**Alexandra de Pokomandy, MDCM, MSc**  
*Clinician Scientist, Research Director*



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<https://www.mcgill.ca/familymed/research>



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## A VIBRANT RESEARCH COMMUNITY mixing clinicians, decision-makers, patient partners and researchers

Researchers include 11 Professors, 10 Associate Professors, 9 Assistant Professors, 2 Associate Members, about 30 research professionals, and about 100 research trainees.

- MSc in Family Medicine with Medical Education Option
- PhD in Primary Care
- Postdoctoral fellowships



# Research [www.mcgill.ca/familymed/research](http://www.mcgill.ca/familymed/research)



## RESEARCH GROUPS

AIFM - [Artificial Intelligence in Family Medicine](#)

CIET - [Community Information and Epidemiological Technologies](#)

CLEAR - [Collaboration](#)

**FMER** - [Family Medicine Educational Research Group](#)

For teachers

ITPCRG - [Information Technology Primary Care Research Group](#)

**PBRN** - [McGill Primary Health Care Research Network](#)

For all

PRAM - [Participatory Research at McGill](#)

ROSA - [Research on Organization of Healthcare Services for Alzheimers](#)

SUPPORT - [Quebec SPOR-SUPPORT Unit](#)

# The Family Medicine Education Research Group (FMER)



## **3 objectives**

- Innovate in family medicine education and continuing professional development
- Develop family medicine education research
- Support decision-making in family medicine education practice and policy

## **5 research areas**

- Information technology and artificial intelligence
- Professional identity
- Mentorship, empathy and wellness in family medicine education
- Evaluative research on educational innovations in family medicine
- Literature reviews in medical education

# The McGill Practice Based Research Network (PBRN)

Production and application of scientific knowledge  
from and for practice to improve patient care

## 3 objectives

- Answer questions that arise out of clinical practice
- Learn from and apply evidence to improve practice and patient care
- Apply clinical experience to guide research and create knowledge

## What's in it for clinicians?

- Access to resources (expertise, technology, McGill Library, and Department of Family Medicine research training activities)
- Involvement in research projects
- Guidance through research process

Contact: [pbrn.fammed@mcgill.ca](mailto:pbrn.fammed@mcgill.ca)

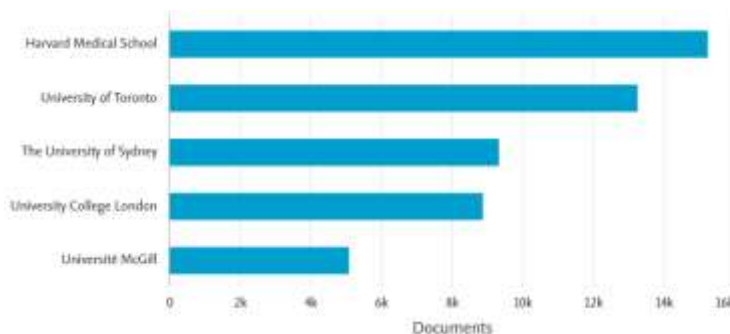


MCGILL PRIMARY HEALTH CARE RESEARCH NETWORK  
RÉSEAU MCGILL DE RECHERCHE EN SOINS DE SANTÉ DE PREMIÈRE LIGNE

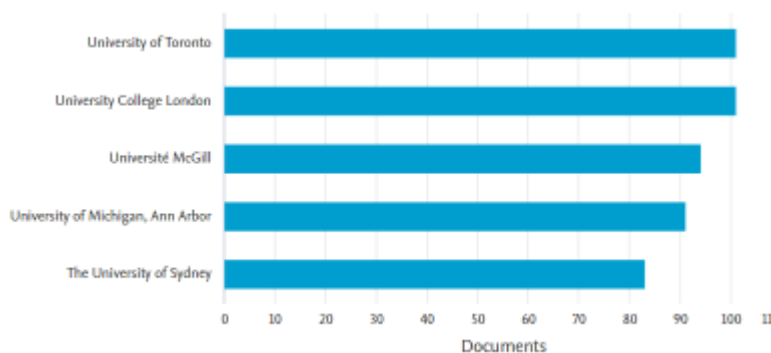


# Scientific Impact

Scopus 2011-2020: Of 811,603 publications in family medicine, McGill published 5073 (0.6%) documents (FMED ranked 34th\*):



Leadership in some research areas and innovative methodologies, e.g., mixed methods (FMED ranked 3rd):



*\*While funded research mainly in biomedical sciences and other specialities.*



# PART 3

## A research journey in the family physician office



### Look It Up!

What Patients, Doctors,  
Nurses, and Pharmacists  
Need to Know about  
the Internet and Primary  
Health Care

PIERRE FLUYE MD, AND ROLAND GRAD MD, WITH JULIE BARIOW



# A 20-year research collaborative journey: Outcomes of information in a primary care context



## Synergy between information studies & primary care research

Creation, development and validation of the Information Assessment Method (IAM) using organizational participatory research, systematic mixed studies reviews, and qualitative, quantitative and mixed methods studies

2001

- Personal Digital Assistant providing evidence at the point of care: Impacts?

2005-

- IAM-clinician questionnaire
- Reflective learning & CME credits (POEMs, eTherapeutics+, ...)

2014-

- IAM-patient/parent/public questionnaire
- Assessment & improvement of online consumer health information

2018-

- IAM-manager
- Assessment of information from Health Technology Assessment agencies

**What was the most important? TRUST**

## Example

# **DO PEOPLE OF LOW EDUCATION AND LOW INCOME PERCEIVE ONLINE PARENTING INFORMATION DIFFERENTLY?**

*Pluye et al. Public Choice Award, Poster, FMF 2019, Vancouver*

### **CONTEXT**

Online consumer health information

- Usually, beneficial for patients/caregivers and clinicians
- Typically, beneficial to people combining high level of education and income

### **RESEARCH QUESTION**

- Does online parenting information help families of low education/income?

### **OBJECTIVE**

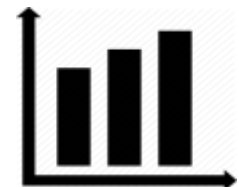
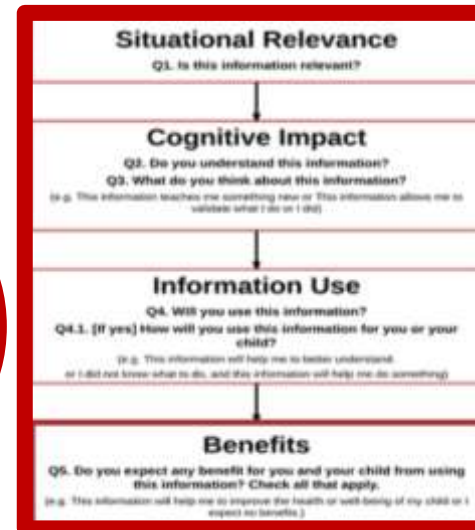
- Uncover outcomes of online parenting information from the viewpoint of these families

## Longitudinal study

- Parents of children aged 0-8 yrs old
- **Naitre & grandir (N&G)**

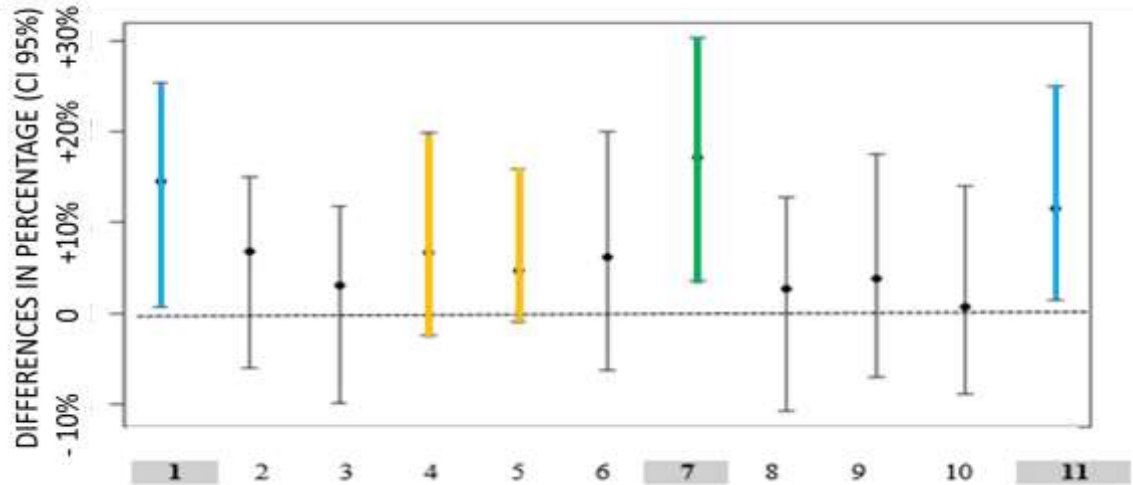
N&G weekly newsletter with trustworthy easy-to-read-listen-watch parenting information on child development, education, health and wellbeing

- Validated IAM-parent questionnaire
- 3-year data collection (2016-2018)
- Statistical analysis: Confidence interval used to estimate the differences between parents combining a low level of income and a low level of education vs. other parents



## RESULTS

- 1889 participants (parents)
- 2447 IAM responses with an intention to use information
  - 50 responses from parents combining low education and low income
  - 2397 responses from other parents
- **Parents combining low education and low income more likely to report benefits from N&G**



### Legend: Types of information outcome (perceived by participants)

#### Participants' intention to **use** information for them and their child:

##### 1. This information will help me to better understand something.

2. I will use this information to do something in a different manner.
3. I will use this information to discuss with someone else.
4. I did not know what to do, and this information will help me to do something.
5. I knew what to do, and this information convinced me to do it.

#### Expected health **benefits** from information for them and their child:

6. This information will help me to improve the health or well-being of my child.

##### 7. This information will help me to be less worried.

8. This information will help me to prevent a problem or the worsening of a problem.
9. This information will help me to handle a problem.
10. I will be better prepared to discuss with someone else.

##### 11. I will be more confident to decide something with someone else.

## DISCUSSION

- N&G information more beneficial to parents combining low education/income
- First study on information outcomes from a parental viewpoint

*Main limitations: Perceived information outcomes and convenience sample*

## IMPLICATIONS FOR PRACTICE

Prevent negative & Promote positive outcomes of online health information

- Provide trustworthy easy-to-read, listen to, watch information ([N&G, MEDLINE+, ...](#))
- Help to find, evaluate and use information, e.g., [Online Health Information Aid](#)

## CONCLUSION

**« It is valuable for clinicians to take an active role in guiding patients to reliable sources of online consumer health information » (Wang et al., 2018).**

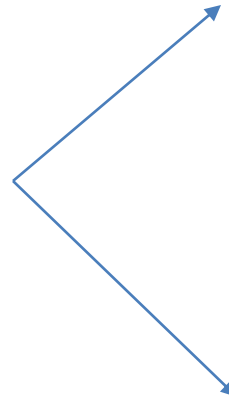
- Pluye et al.: Specifically for patients combining low education/income
- Expect positive impacts: Improvement of online searching behaviors, patient empowerment, patient outcomes, and patient-clinician relationship

Wang et al. Online health searches and their perceived effects on patients and patient-clinician relationships: a systematic review. *The American Journal of Medicine*, 2018, 131(10): e1250.

# PART 4. Discussion

Share YOUR experience:

- Research participant
- Collaborator
- Co-investigator
- Principal investigator
- Other



« Patient recruitment is tough. In a CIHR-funded project, we successfully recruited patients who visited my office. The research assistant was sitting outside my office door. I would introduce patients to her, and she would explain the study to them. It worked but was time-consuming for her. »

« Industry funded drug trials in Family Medicine are revenue generating. All other projects cost time and money, e.g., the pursuit of descriptive studies and Quality Improvement projects based on EMR data. »

**Acceptability (time, ...)?**

**Needs (expertise, ...)?**

**Research journey in the office?**

**Observed/expected impacts?**



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# 1 post-workshop question

In 2022, I will contribute to family medicine research as (check all that apply):

- Principal investigator, i.e., project leader
- Co-investigator, i.e., involved at all stages
- Collaborator, e.g., recruiting participants
- Research participant, e.g., survey respondent
- Other type of contribution to research
- I will never contribute to a research project
- I prefer not to answer (or not applicable)



**THANK YOU!**