

Outcomes associated with online consumer health information in primary health care: A mixed studies review with a framework synthesis and the Configurational Comparative Method

Reem El Sherif, Pierre Pluye, Vera Granikov, Benoit Rihoux, Maria Cristiane Barbosa Galvao, Quan Nha Hong, Isabelle Marie Vedel, Francesca Frati, Sophie Desroches, Jo-Anne Hutsul, Carol Repchinsky, France Légaré, Burnand Bernard, Mathieu Bujold, Roland Grad

McGill University, Université catholique de Louvain, University of Sao Paulo, Laval University, Canadian Pharmacists Association, Lausanne University Hospital

1. Background and Objectives

- Online consumer health information (OCHI) associated with improved knowledge, involvement, and health
- Little is known about its “value” in primary care
- No comprehensive tool to assess information-use

Objectives:

- Identify types of OCHI outcomes
- Revise conceptual framework
- Identify conditions associated with positive outcomes

3. Phase 1 Results

Influencing factors

- Individual characteristics: e.g. age, health status, health information literacy
- Socio-technical factors: e.g. social support system, access to Internet
- Patient-clinician relationship: e.g. perception of clinicians towards OCHI
- Healthcare system: e.g. access to health care services

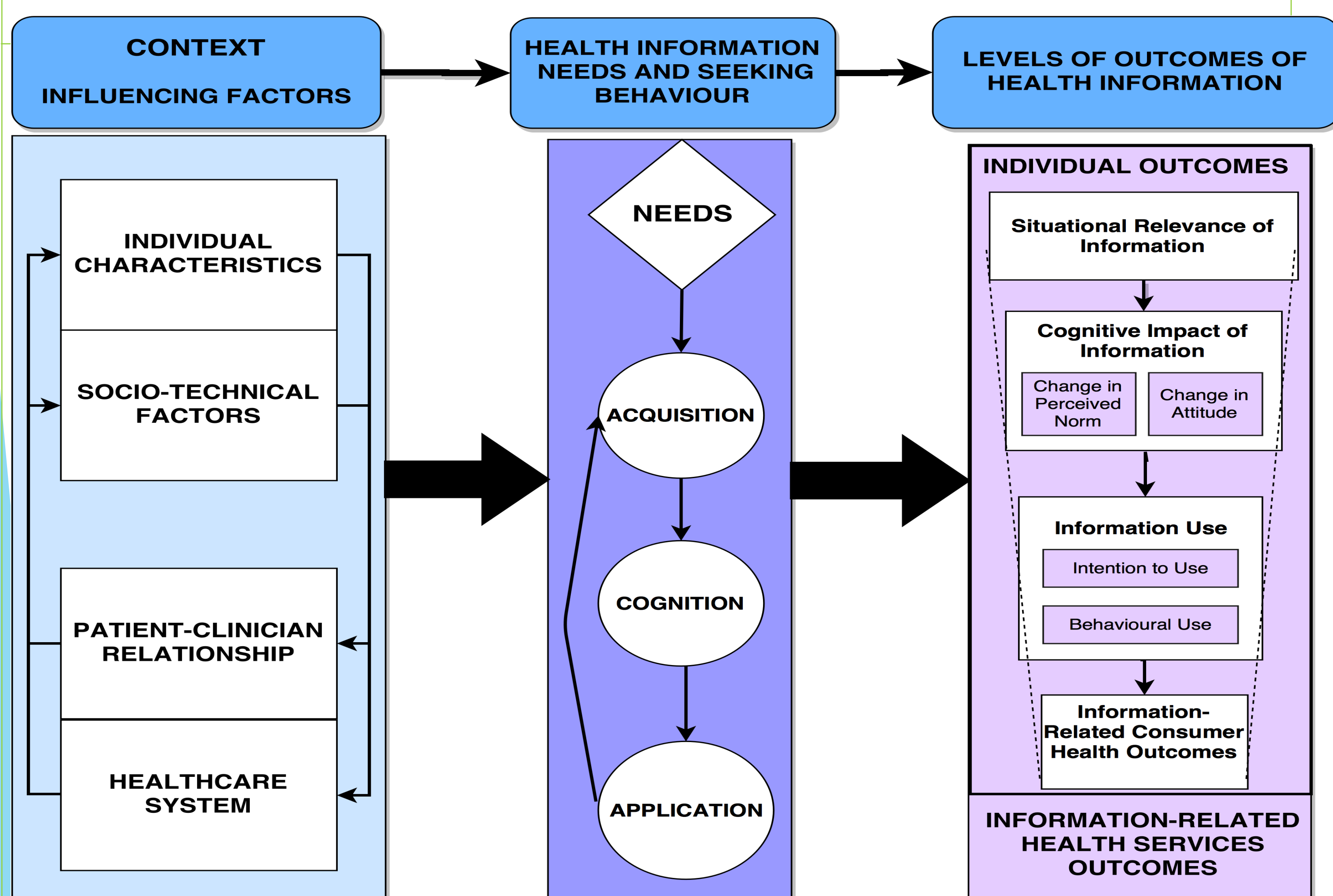
Individual health outcomes

- Positive: increased involvement in health care, health improvement, better communication with health care providers
- Negative: deterioration of the patient-clinician relationship, increased worry, overuse or misuse of health services

Health services outcomes

- Increased physician’s responsibilities, excessive ER visits and longer wait times

Revised model: Factors and outcomes of online consumer health information



5. Conclusions

NEXT STEPS: Results will be used to develop a *Patient Information Aid* to help people find and use relevant OCHI

2. Methods

Eligibility criteria

- Qualitative, or quantitative, or mixed methods study, French or English (1990-2014), Community-based primary health care setting, OCHI use

Information sources

Medline, Embase, PsycINFO, CINAHL, LISA, grey literature (librarians)

Selection & Appraisal

2 reviewers (DistillerSR & Mixed Methods Appraisal Tool (MMAT))

Data extraction and synthesis

Phase 1:

- Deductive-inductive thematic analysis (Nvivo)
- Harmonization of themes to develop terminology
- Card sorting exercise to organize influencing factors
- **Framework synthesis**

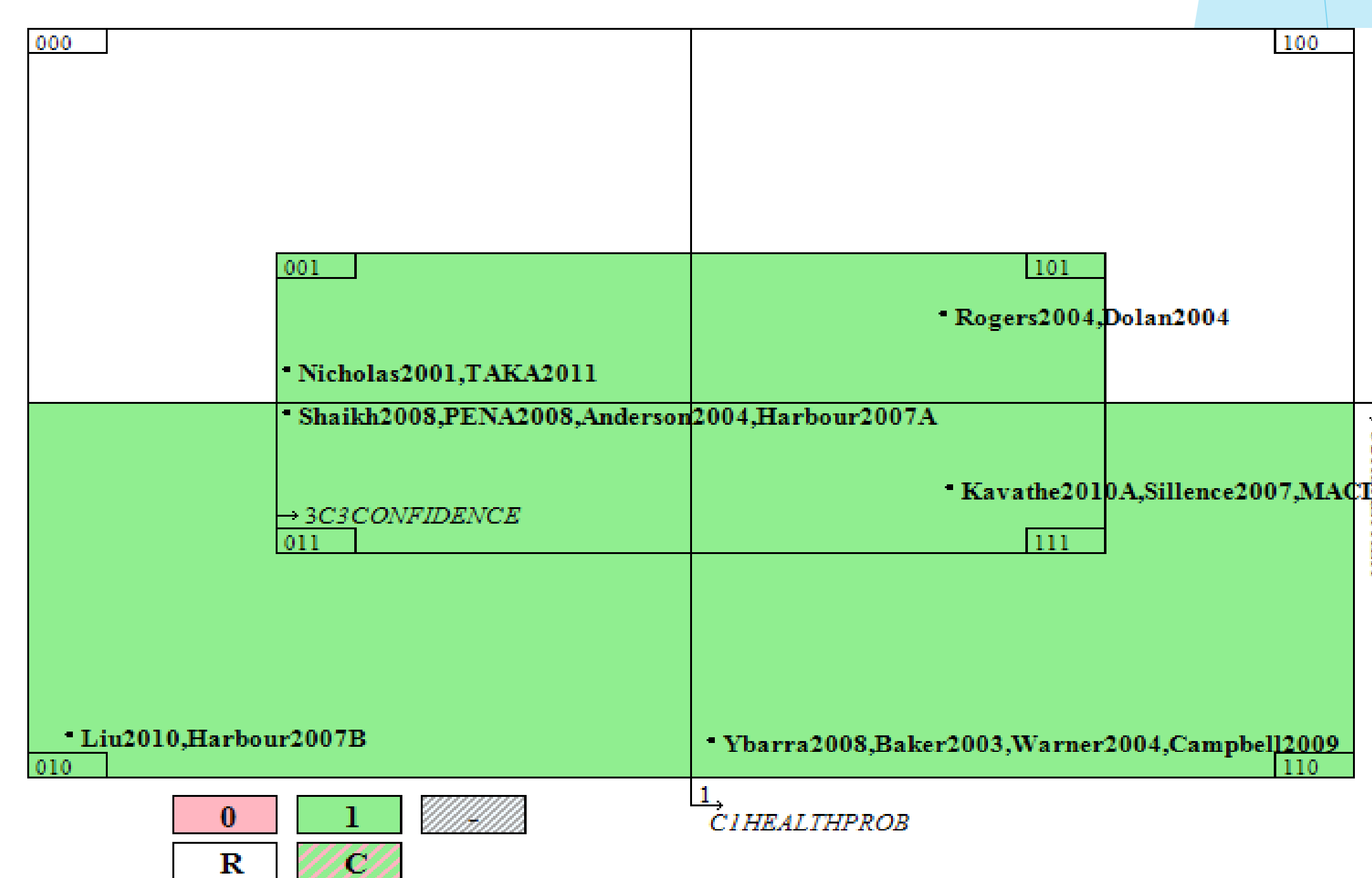
Phase 2:

- **Configurational Comparative Method (Boolean analysis)**

4. Phase 2 Preliminary Results

- 3 conditions: health problem, health information literacy, and confidence in OCHI
- Outcomes were positive individual health outcomes

Case ID	Health Problem	Health Literacy	Confidence	Outcome
Shaikh2008, PENA2008, Anderson2004, Harbour2007A	0	1	1	1
Rogers2004, Dolan2004	1	0	1	1
Nicholas2001, TAKA2011	0	0	1	1
Kavathe2010A, Sillence2007, MACIAS2008, Fox2007, Powell2011, Porter2007	1	1	1	1
Ybarra2008, Baker2003, Warner2004, Campbell2009	1	1	0	1
Liu2010, Harbour2007B	0	1	0	1



- It appears that whenever there is “high confidence” OR “high literacy”, there is a positive outcome

6. Références

1. Pluye, Pierre, et al. "Four levels of outcomes of information-seeking: A mixed methods study in primary health care." *Journal of the American Society for Information Science and Technology* 64.1 (2013): 108-125. Pluye, et al. (2011)
2. Pluye, Pierre, et al. "Development and content validation of the Information Assessment Method for patients and consumers." *JMIR research protocols* 3.1 (2014): e7. Granikov et al. *JCHI*, 2015
3. Rihoux, Benoît, and Charles C. Ragin. *Configurational comparative methods: Qualitative comparative analysis (QCA) and related techniques*. Sage, 2009.