ASSESSING THE VALUE OF INFORMATION
and why I decided to go back to school
My job
Research-embedded health information specialist
Exploring the value of information
ACA-LO Theoretical Model

The ACA Cycle is associated with 4 Levels of Outcomes

Human information interaction process depicted by the ACA cycle

Outcomes captured in the Information Assessment Method (IAM) questionnaire

- Relevance
- Cognitive Impact
- Use
- Health Benefits

In a social context (e.g., continuing education)
The Information Assessment Method for health professionals

- Over 15,000 Canadian pharmacists and physicians use the Information Assessment Method (IAM) to rate and comment educational emails
  - Continuing medical education
  - Feedback comments used to improve content
  - Choosing Wisely Campaign
<table>
<thead>
<tr>
<th>IAM items</th>
<th>All searches (N = 793)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Search objectives</strong></td>
<td></td>
</tr>
<tr>
<td>Address a clinical question/problem/decision making about a specific patient</td>
<td>490 (61.8%)</td>
</tr>
<tr>
<td>Share information with a patient/caregiver</td>
<td>248 (31.3%)</td>
</tr>
<tr>
<td>Exchange information with other health professionals</td>
<td>201 (25.3%)</td>
</tr>
<tr>
<td><strong>Information use</strong></td>
<td></td>
</tr>
<tr>
<td>Information used to maintain or justify the management of this patient</td>
<td>328 (41.4%)</td>
</tr>
<tr>
<td>Information used to change the management of this patient</td>
<td>272 (34.3%)</td>
</tr>
<tr>
<td>Information used to change your understanding of specific issues regarding this patient</td>
<td>204 (25.7%)</td>
</tr>
<tr>
<td><strong>Patient health</strong></td>
<td></td>
</tr>
<tr>
<td>Avoid unnecessary or inappropriate treatment, diagnostic procedure or preventive intervention</td>
<td>282 (35.6%)</td>
</tr>
<tr>
<td>Prevent disease or health deterioration (including acute episode of chronic disease)</td>
<td>272 (34.3%)</td>
</tr>
<tr>
<td>Increase patient acceptability of treatment, diagnostic procedure or preventive intervention</td>
<td>256 (32.3%)</td>
</tr>
</tbody>
</table>
What are the outcomes associated with the use of online consumer health information?

- 98.5% of 18-44 year olds access online consumer health information (OCHI)
- Improves knowledge, participation in healthcare, and health outcomes
- However, no systematic study on OCHI outcomes in primary care
How is OCHI valuable from the consumers’ perspective, specifically those with a low health literacy level (60% of Canadian adults)?

- Information source: Naître et grandir (N&G), a parenting information website
- Participants: parents of 0-8 yr old children, registered to receive N&G information, completed at least one IAM questionnaire between Dec 1, 2015 - May 31, 2017
- Data collection: IAM questionnaire adapted and validated for N&G, demographic questionnaire
- Data analysis: Pearson’s chi-squared test to compare 2 groups (low-education, low-income vs. others)
  - Low-education, low-income: high school diploma or no diploma and annual family income <$40,000
Do you expect any benefit for you and your child from using this information?

- Help to improve the health/well-being of my child
- Help me to be less worried
- Help me to prevent a problem or the worsening of a problem
- Help me to handle a problem
- Be better prepared to discuss with someone else
- Be more confident to decide something with someone else
- I expect no benefits

Low education & income (N = 38) vs. Other (N = 1758)
I learned how to

- Manage projects, budgets, and time
- Conduct exhaustive searches and complex systematic literature reviews
- Conduct interviews and focus groups
- Analyze quantitative and qualitative data
- Write scientific articles
- Present at conferences
- Develop and support communities and networks
- Collaborate with researchers, clinicians, and patients
- Organize workshops and trainings
- Apply to funding agencies and ethics review boards
- **Carry out research projects, starting from the initial idea all the way to publishing findings**
“It’s extremely difficult to stay up to date in a comprehensive way. The biggest answer to it is – I really don’t stay up to date and it takes too much time.” [S38]

“I can’t possibly really keep up to date. I mean in the sense that I don’t have that much space in my head!” [S50]

Pontis et al. 2017
“The most important information is information that’s not yet published. (...) Most important is to talk to the people, because they tell you much more (...) We talk about more than is published or you’ll find in databases. It’s sharing ideas. [S21]”

(Pontis et al. 2017)
Concepts informing my work

- Information monitoring
- Information filtering
- Collaborative information seeking
- Crowdsourcing and citizen science
- Research collaboration

Information behaviour
**Patient-oriented research (POR):** a continuum of research that engages patients as partners, focusses on patient-identified priorities and improves patient outcomes (CIHR website)

**General research objective:** to understand how POR stakeholders (patients, clinicians, decision-makers, and researchers) engage in and benefit from collaborative monitoring and filtering of scientific literature to keep up-to-date
Thank you!
References


