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Health Literacy in the Context of Medication Use or Medication Literacy:

Development of a consensus definition



Dr. Annie Pouliot

PhD Population Health

Pharmacy – Coordinator & Research facilitator

Children's Hospital of Eastern Ontario

www.cheo.on.ca

Affiliations and conflicts of interest





Today's objectives:

- Present the results from a Delphi study conducted with experts about **medication literacy**.
- **Open the dialogue with the panel of experts and audience** about the concept of medication literacy and its application in practice

INTERNATIONAL DELPHI STUDY ABOUT MEDICATION LITERACY

Background

- Pharmaceuticals play a primary role in the management of most diseases
- Adverse medication events are often caused by:
 - Inappropriate use of medicines
 - Poor understanding of medication instructions
 - Low health literacy
- The use of medications often requires complex tasks to be completed
- Medication adherence is necessary to achieve therapeutic outcomes

From health literacy to medication literacy

- Health literacy is essential in navigating the health system.
- Why do we need another concept?
 - 1) To improve the quality of medication information;
 - 2) To advocate for a shared responsibility;
 - 3) Health literacy definitions are too general given the complexity of the tasks related to medication therapy

Multiple concepts and definitions: medication, pharmacotherapy, pharmacy health literacy

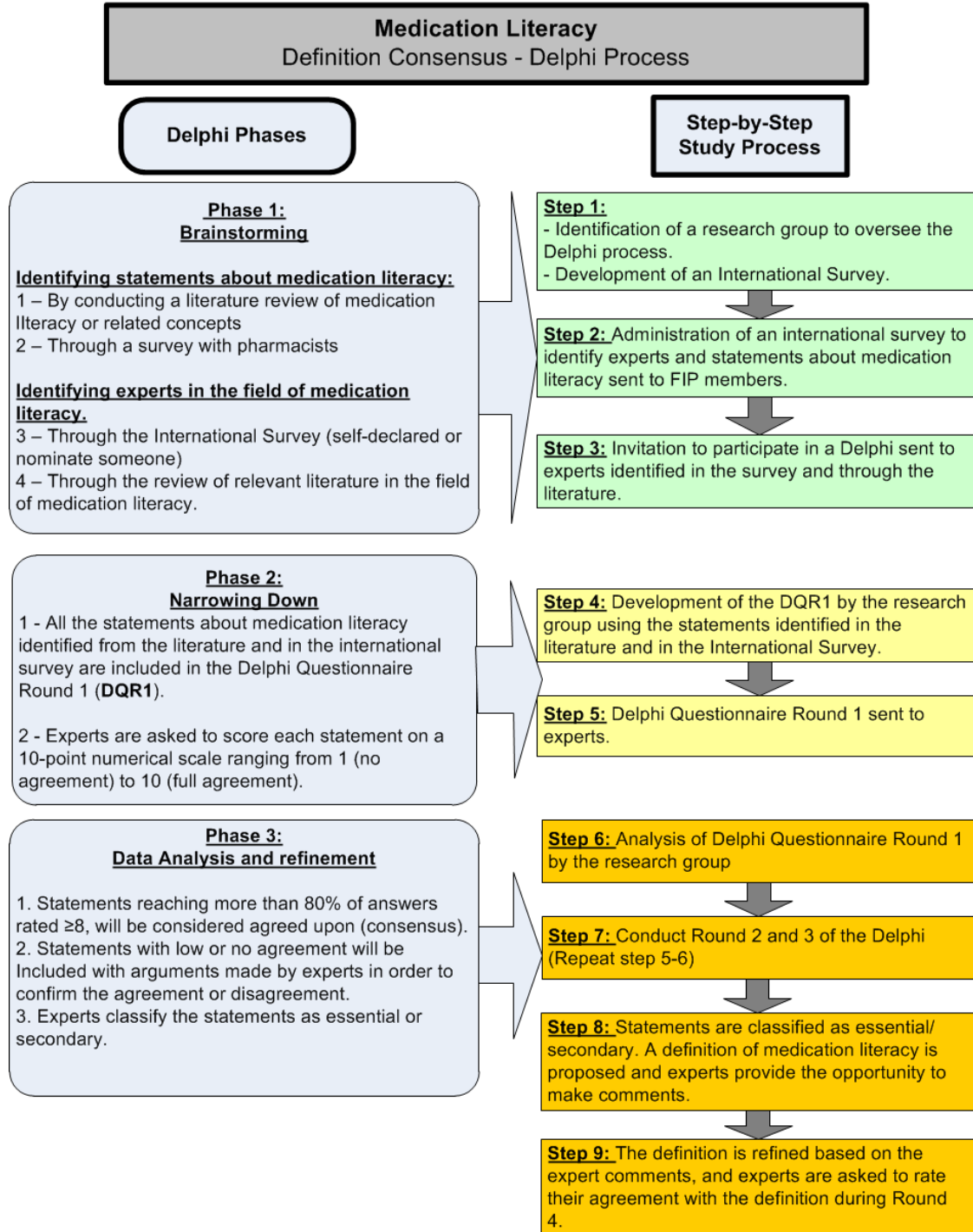
Table 1: Terms used to discuss health literacy in the context of medication use

Terms	Authors (year)	Definition
Medication literacy	Raynor (2009)	A person's ability to make decisions about medicines that are right for them, allowing the medicines' safe and effective use
	Sauceda et al. (2012)	Ability of individuals to safely and appropriately access, understand and act on basic medication information
Pharmacy health literacy	Agency for Healthcare Research and Quality- AHRQ Pharmacy Health Literacy Center	The degree to which individuals are able to obtain, process, and understand basic health and medication information and the pharmacy services needed to make appropriate health decisions
Pharmacotherapy literacy	King, McCaffrey, Bouldin (2011)	An individual's ability to obtain, evaluate, calculate, comprehend and properly act upon patient-specific information concerning pharmacotherapy and the pharmaceutical services necessary to make appropriate medication-related decisions, regardless of the mode of content delivery (e.g. written, oral, visual images and symbols)

Objectives

- Establish a consensus about what constitutes medication literacy by identifying the statements about medication literacy
- Propose a new definition of medication literacy, if necessary

Method:

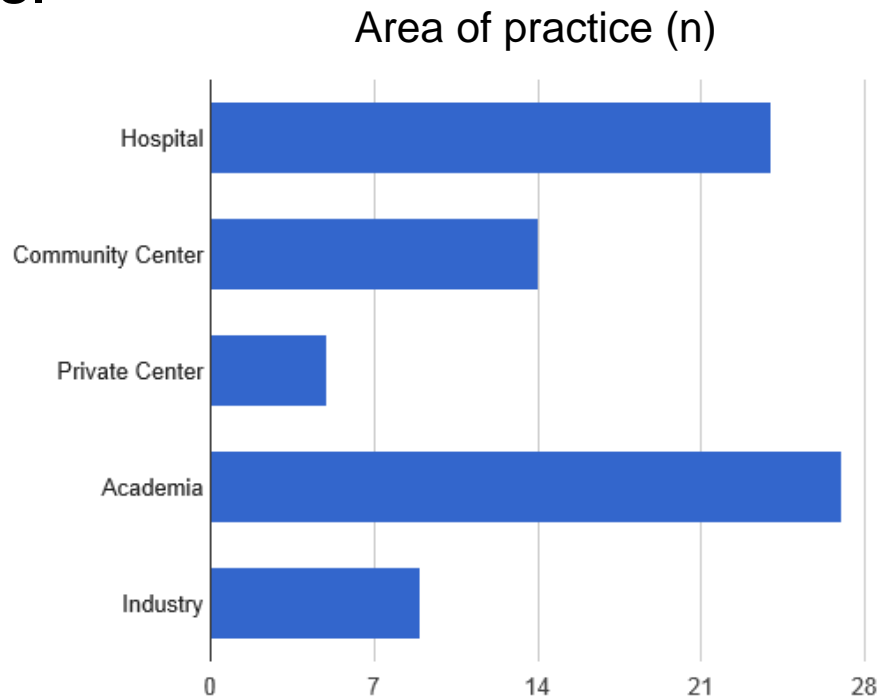


Panel of experts

- Identified through a review of relevant literature and the international survey on medication literacy (self-identified or suggested).
- Identified based on:
 - Leadership in publication
 - Education
 - Professional interest and participation in the area of health literacy in the context of medication use.
- Led by the research group

Results – International survey

International survey: 81 members from 44 different countries.

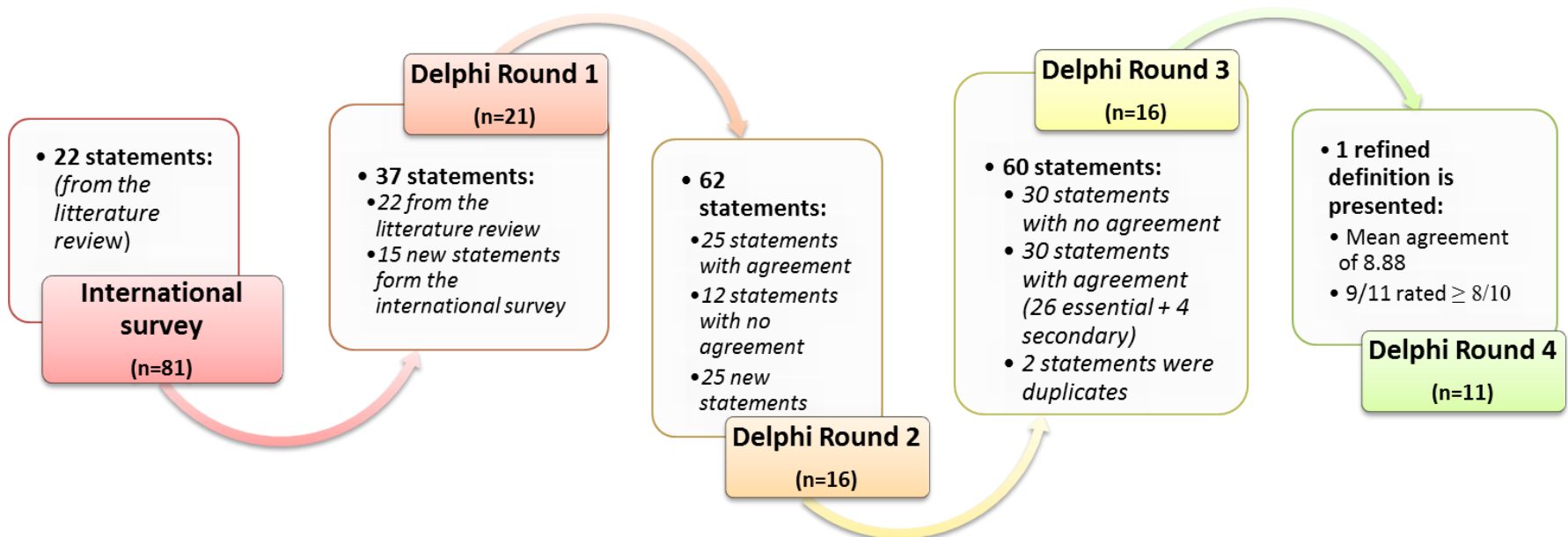


Results – Delphi study

Panel of experts:

- 21 experts from 16 different countries participated:
 - 15 Pharmacists (71.4%),
 - 1 Physician (4.8%),
 - 5 Academics (5, 23.8%),
- Working in:
 - Hospitals (6, 28.6%),
 - Community Centers (4, 19.0%),
 - Private Centers (1, 4.8%),
 - Academia (9, 42.9%),
 - Other (1, 4.8%)

Statements - overall results



Statements about medication literacy

- Experts agreed upon **30 statements**, which were divided into four clusters representing:
 1. Type of information necessary for optimal and safe use of medication;
 2. Skills necessary for optimal and safe use of medication;
 3. Format of information and pharmacy services;
 4. Outcome and goals.

Type of information necessary for optimal and safe use of medication

1. Medication name. (E)
2. Dosing information (e.g.: Frequency, duration, timing). (E)
3. When to take medication: with or without food. (E)
4. Time to take medication with patient's other pharmacotherapy. (E)
5. Treatment indication, goals, and outcomes. (E)
6. Side effects & precautions (e.g.: contraindications). (E)
7. Drug-drug interactions (including alcohol). (E)
8. When to omit intake of medication. (E)
9. When and how to expect therapeutic effects. (E)
10. Food-drug interactions (including grapefruit). (E)
11. Instructions to follow if dose is missed. (E)
12. Medication storage instructions. (E)
13. Medication disposal instructions. (S)

Skills necessary for optimal and safe use of medication

14. Numeracy. (*E*)

15. Literacy. (*E*)

16. Oral - Communicating with healthcare provider. (*E*)

Format of information and pharmacy services necessary for optimal and safe use of medication

- 17. Verbal information. (*E*)
- 18. Print information. (*E*)
- 19. Visual images or symbols. (*E*)
- 20. On-site support groups. (*S*)
- 21. Public education. (*S*)

Outcomes and goals of medication literacy:

- 22. Processing the information received about their medication and acting upon medication instructions. (E)
- 23. Making INFORMED decisions regarding their medication and health. (E)
- 24. Individuals SHOULD be able to understand and act upon basic medication use. (E)
- 25. When and how to contact help (e.g.: if overdose). (E)
- 26. Individuals SHOULD be able to understand and act upon basic health and medication information. (E)
- 27. Individuals SHOULD be able to understand and act upon patient-specific information. (E)
- 28. Calculating/preparing the prescribed dose of their medication. (E)
- 29. Recognizing when to ask for re-evaluation (or a second opinion) of their current medication. (E)
- 30. Obtaining further information about their medication. (S)

2 proposed definitions

Definition 1 (Preferred by 75% of the experts)

"The degree to which individuals can obtain, comprehend, communicate, calculate and process patient-specific information about their medication to make informed medication and health related decisions in order to safely and effectively use their medications, regardless of the mode by which the content is delivered (e.g. written, oral and visual)."

Definition 2

"An individual's ability to obtain, comprehend, communicate, calculate and process basic information about medication that is necessary to make informed medication decisions in order to safely and effectively use their medication, regardless of the mode by which the content is delivered (e.g. written, oral and visual)."

Medication literacy consensus definition

"The degree to which individuals can obtain, comprehend, communicate, calculate and process patient-specific information about their medications to make informed medication and health decisions in order to safely and effectively use their medications, regardless of the mode by which the content is delivered (e.g. written, oral and visual)."

Limitations

- May have been overly represented by practitioners; not an academic definition but practice oriented.
- International participants/experts and research groups – English was not the first language of many experts.
- International experts with different experiences with medication literacy.
- Anonymity of a Delphi – limited discussion