

# Advancing a program theory for community-level oral health promotion programs for humanitarian migrants: A realist review protocol

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## Introduction

- **Humanitarian migrants** (refugees, asylum seekers, undocumented migrants, internally displaced persons and trafficked persons) suffer from poor oral health (1).
- Many community-level oral health promotion programs implemented to address humanitarian migrants' oral health needs:
  - **Oral health education programs:** improving the oral health knowledge of humanitarian migrants;
  - **Dental service provision programs:** provision of dental services for humanitarian migrants by volunteer dentists and NGOs; and
  - **Training migrants as community oral health workers (COHWs)** to provide oral health education or dental services for their own community (2).
- Programs are complex interventions.
  - Involve client reasoning, behavior and decision-making.
  - Yield different outcomes in different contexts (3).
- Designing and implementing an effective community-level oral health promotion program for humanitarian migrants requires a deeper understanding of the causal pathways through which the contextual foundations of a program impact the program outcomes.

## Methodology

**Realist review:** a theory-driven methodology used in evidence-based policy.

- Causal heuristic: '**context-mechanism-outcome configurations (CMOCs)**' (4),
  - **Context:** conditions within which a program is implemented (e.g. interpersonal relationships, culture, legislations)
  - **Mechanism:** participants' reasoning and responses to the program, depending on their values, situations, beliefs, and cognition)
  - **Outcome:** intended or unintended
- Programs are *theories*: implementation of a program tests the theory about what can cause behavior change in the target population (4).
- A realist review begins with an initial '*rough*' program theory and ends with a refined '*middle-range*' program theory (5).
- Middle-range: not too abstract to detach from the programs' contexts, not too specific to pertain to only one program.

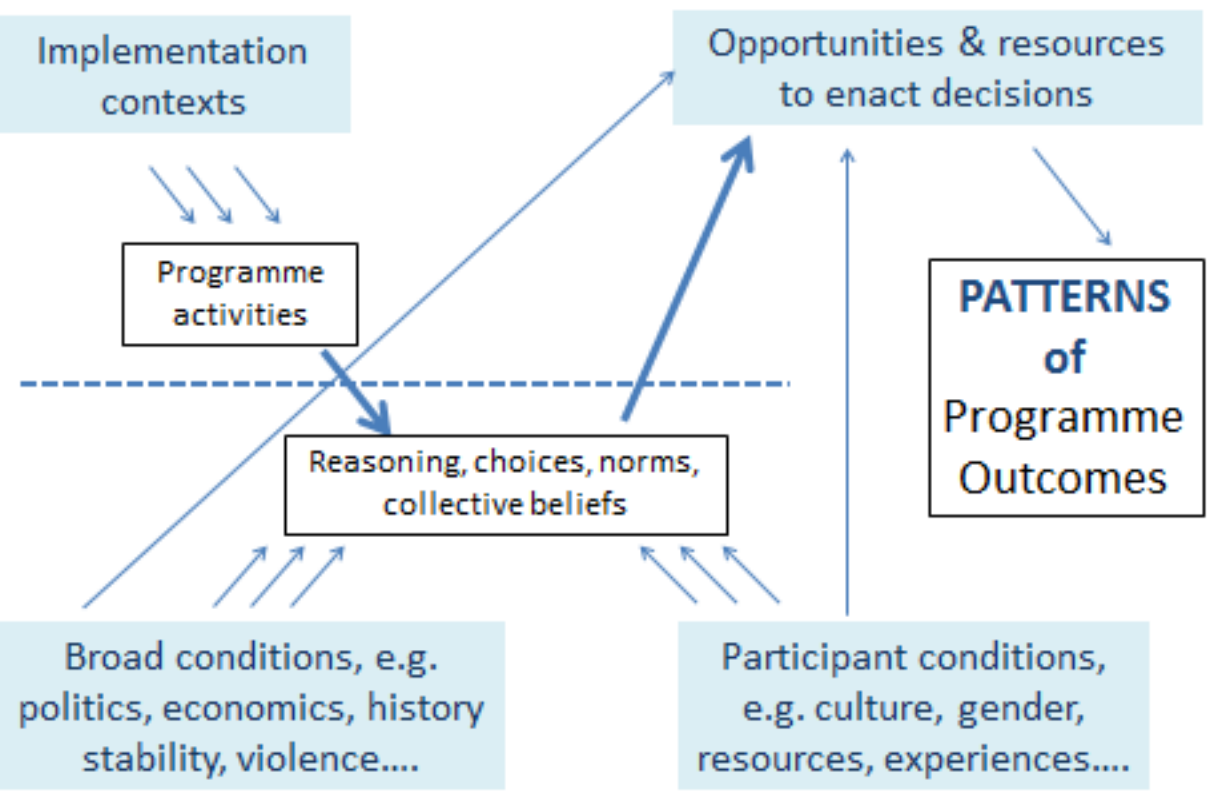


Figure 1- the relationship between contextual factors, mechanisms and outcomes. (Source: Wong G, Westhorp G, Pawson R, Greenhalgh T. Realist synthesis: RAMESES training materials. London: The RAMESES Project. 2013.)

## Review steps

**Study aim:** To identify underlying mechanisms through which contextual factors of community-level oral health promotion programs for humanitarian migrants lead to the observed outcomes.

### Step 1: Clarifying the scope of the review and drafting an initial program theory

*Clarifying the scope of the review:*

Overarching question:

*How do community-level oral health promotion programs for humanitarian migrants work, in which contexts and settings, and why?*

More specific questions:

*What are the mechanisms through which contextual factors of*

1. *oral health education programs*
2. *dental service provision programs and*
3. *community oral health worker programs for humanitarian migrants generate these programs' outcomes?*

*Drafting an initial program theory:*

- searching the bibliographies of a relevant scoping review (2)
- hand searching in google scholar using the specific keywords

For each program type:

1. developing a theory of action/theory of change
2. identifying and incorporating relevant substantive theories into the drafted theory
3. populating the theory with CMOCs.

*Developing a network of stakeholders:*

- (i) one internationally-renowned migrant oral health researcher,
  - (ii) one community-level oral health promotion program designer or project implementer,
  - (iii) one representative from a local migrant organization;
  - (iv) one representative from an international migrant organization; and
  - (v) one humanitarian researcher.
- Sharing the initial theory with stakeholders for feedback
  - Incorporating the feedback into initial theory
  - Refinement of initial theory during the review process

### Step 2: Identifying relevant studies

- A comprehensive search of peer-reviewed literature in Ovid Medline, Ovid EMBASE, CINAHL and Cochrane library
- Table 1: search strategy for Ovid Medline, which will be translated for use in other databases.
- search of grey literature, including websites of World Health Organization (WHO), World Dental Federation (FDI), and International Organization for Migration (IOM).

**Inclusion criteria:**

- (i) relevance
- (ii) rigor
- (iii) not uniquely addressing oral health (i.e. oral health merged with general health);
- (iv) no information about C, M and O.

**Exclusion criteria:**

- (i) full-text not found
- (ii) combining other populations with humanitarian migrants;
- (iii) not uniquely addressing oral health (i.e. oral health merged with general health);
- (iv) no information about C, M and O.

### Step 3: Quality appraisal and data extraction

**Quality appraisal:**

Rigor:

1. trustworthiness (whether the inferences from data can be trusted)
  2. coherence (consistency of data with other relevant literature) (6).
- In realist reviews, data can be drawn from any part of a paper, not just the results section (7).
  - Using quality checklists to include or exclude papers is not appropriate.
  - no paper will be excluded through the assessment of rigor.

**Data extraction:**

We will chart the data in an excel spreadsheet, including

- (i) bibliographic details: title, author, journal and year of publication;
- (ii) study design;
- (iii) target population, type of program, the context, and the outcome; and
- (iv) the relevant data, their interpretation, and the CMOCs.

### Step 4: Data synthesis

1. Identifying outcomes and contexts
2. Identifying mechanisms through 'retroduction' (using inductive and deductive reasoning and creative thinking);
3. Connecting the elements of context, mechanism and outcome to construct CMOCs, which will be used to refine the initial program theory.

### Step 5: Dissemination

- reporting the findings according to the principles of 'Realist And Meta-narrative Evidence syntheses: Evolving Standards (RAMESES) publication standards for realist synthesis (8).'
- Two manuscripts: one for the initial theory and the other for the refined middle-range theory.
- Recommendations will be made with the help of stakeholders.

1. exp Refugees/
2. refugee.tw,kf.
3. refugees.tw,kf.
4. exp "Transients and Migrants"/
5. exp "Emigrants and Immigrants"/
6. "Emigration and Immigration"/
7. exp Undocumented Immigrants/
8. humanit* migra*.tw,kf.
9. asylum seek*.tw,kf.
10. internal* displac*.tw,kf.
11. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10
12. exp Oral Health/
13. exp Dentistry/
14. oral healthcare.tw,kf.
15. exp Dental Health Services/
16. exp Fluorides, Topical/ or exp Fluorides/
17. exp Mouth Diseases/
18. exp Periodontal Diseases/
19. exp Dental Caries/
20. 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19
21. (oral* adj3 health*).tw,kf.
22. (dental* or dentist* or tooth or teeth or caries or carious or periodont*).tw,kf.
23. 20 or 21 or 22
24. 11 and 23

Table 1- The search strategy developed for the Ovid Medline Database.

## Significance

- This study contributes to **Migrant Oral Health Project (MOHP)**
- Realist reviews are novel in oral public health.
- This study is among the first using realist methodology in oral health research.
- Enabling a theory and evidence-based approach to designing and implementing an effective community-level oral health promotion program for humanitarian migrants.
- Theory and evidence-based recommendations
- Multidisciplinary

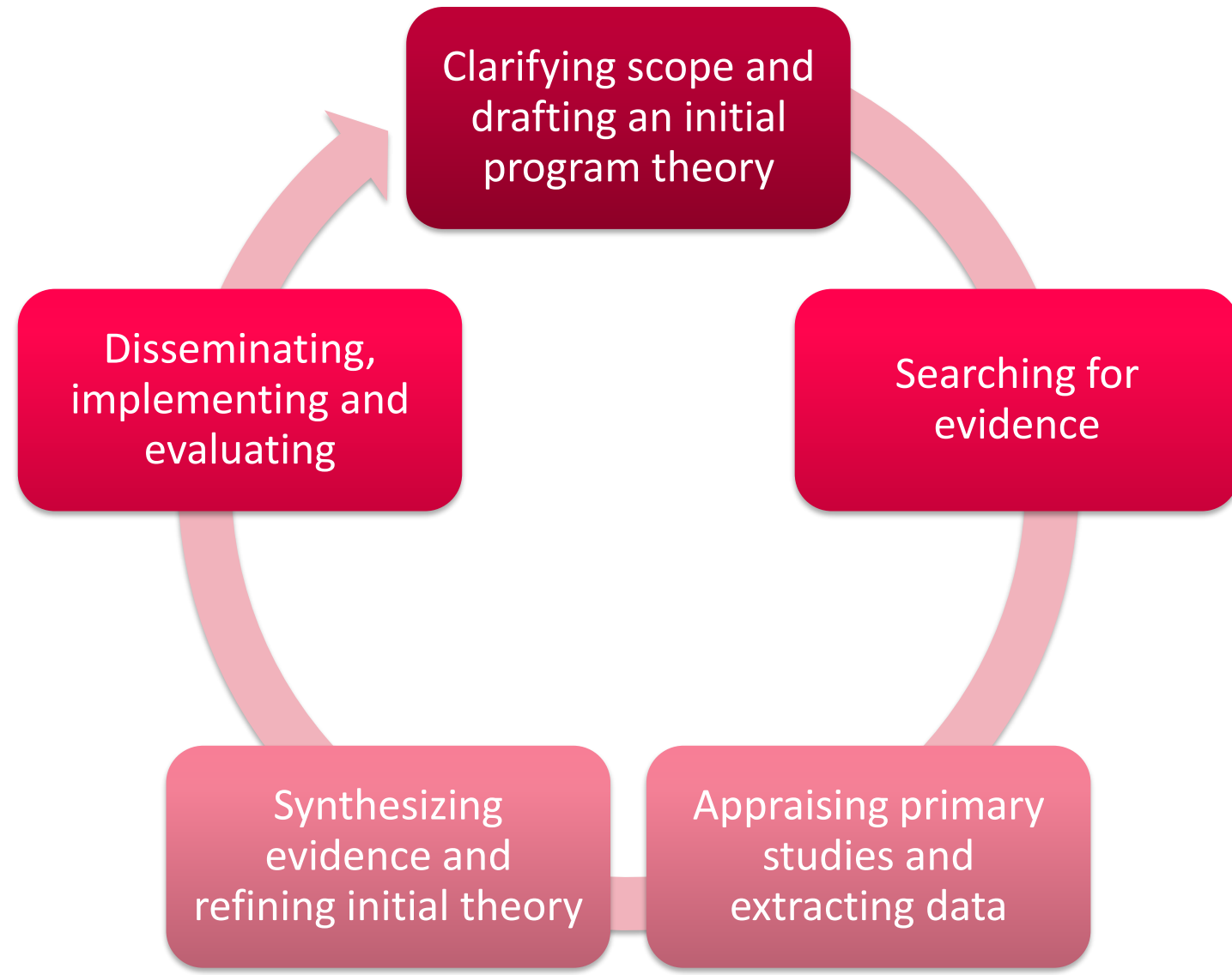


Figure 2- Pawson's five steps of realist reviews. Note that these steps are iterative and the reviewer will need to go back and forth between stages. (reference: Pawson R, Greenhalgh T, Harvey G, Walshe K. Realist review-a new method of systematic review designed for complex policy interventions. Journal of health services research & policy. 2005 Jul;10(1\_suppl):21-34.

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