Factors Influencing Participation in Cancer Screening

Sahir Rai Bhatnagar

Queen's University

March 6, 2013

Study Objective

Factors affecting screening participation can be categorised into
1) non-modifiable (SES, demographics, education, health insurance)
2) modifiable (knowledge, perception of risk, benefits and barriers)

Research question

Among South Asian men and women ages 40+ in the Greater
Toronto Area (GTA), can the 5 psychosocial contructs of the
Preventive Health Model (PHM) be used to

1. Predict colorectal cancer screening (CRCS) adherence
2. Adequately design behavioral interventions that promote the
   use of CRCS

Basic Rationale

Key Facts about Colorectal Cancer (CRC) and the South Asian population

- 2nd leading cause of cancer death in Canadians. Highest susceptibility age 50+
- Significantly better outcomes if diagnosed in the first two stages $\rightarrow$ population-based screening can detect CRC at an early stage
- 14% of males and 10% of females reported a fecal occult blood test (FOBT) in past 2 years $\rightarrow$ CCO 2020 Target: 90%
- Disproportionate amount of CRCS uptake between visible minorities and their counterparts
- South Asian population $\rightarrow$ largest visible minority group in Canada (over 700k living in GTA)

Study Objective
Basic Rationale
Design and Justification
Challenging Issues

Design
Justification

Cross-Sectional Study using the Preventive Health Model

- Population: South Asians (from India, Pakistan, Bangladesh, Sri Lanka) ages 40+ living in the GTA
- Exposures: 3 demographic characteristics (age, marital status, education) and 16 psychosocial items of the PHM measured on a 5-point Likert scale
- Outcome: Any screening test (FOBT, colonoscopy) done in the past 2 years

Study Objective
Basic Rationale
Design and Justification
Challenging Issues

Design
Justification

Cross-Sectional Study using the Preventive Health Model

- Questionnaires administered orally by trained South Asian male and female interviewers in participant's preferred language
- Study materials translated, pre-tested with members of the target population and revised accordingly
- Sampling: places of worship, hospitals
- Incentives: Compensation for time and materials about CRCS guidelines and resources

Study Objective
Basic Rationale
Design and Justification
Challenging Issues

Design
Justification

Preventive Health Model

5 Constructs

1 Salience and coherence: Having CRCS can help to protect my health

2 Perceived susceptibility: Compared with other persons my age, I am at a lower risk for CRC

3 Response efficacy: When CRC is found early, it can be cured

4 Cancer worries: I am worried that the screening will show that I have CRC or polyps

5 Social influence: I want to do what my doctor or health professional thinks I should do about CRCS

PHM shown to be factorially invariant across gender: items on the questionnaire are interpreted similarly by men and women

Challenging Issues

- Selection bias: difficulties with recruitment, sampling, women may be less likely to participate due to patriarchal norms in SA culture
- Information bias: measurement error, 4 interviewers (1 for each language), lost in translation
- Confounders: other factors that may influence CRC screening in the SA population (e.g. language, time since immigration, access to a family physician, employment status, marital status, education)