Adherence to Rescreening for Colorectal Cancer with Faecal Occult Blood Testing

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Abstract

This thesis aimed to describe and predict adherence to Faecal Occult Blood Test (FOBT) rescreening recommendations in South Australia. Specifically, this thesis aimed to determine the relevance of social cognitive variables for explaining variations in rescreening adherence. FOBT screening for colorectal cancer (CRC) is recommended every one to two years for those over the age of 50; reductions in incidence and mortality from CRC are dependent on continued compliance with these guidelines. Whilst there has been substantial research on factors associated with initial screening participation, there has been very little research conducted on how to encourage rescreening adherence (i.e., continued participation in annual or biennial screening offers). The few studies that have examined predictors of rescreening have, to date, limited their exploration to demographic and health systems factors. This thesis aims to determine the relevance of the inclusion of behavioural factors previously associated with initial screening (i.e., social cognitive variables) for explaining rescreening and also to explore potential new predictors of rescreening not previously examined in CRC rescreening research.

The thesis used a sequential, mixed-methods research design to address the aims. Three separate studies, one qualitative and two quantitative, were used to explore predictors of adherence to FOBT rescreening. The three studies are presented as three separate papers in the thesis. Study one used 17 semi-structured interviews to explore rescreening participants’ past experience with FOB testing. Exploratory thematic analysis was used to determine factors relevant for inclusion in a subsequent questionnaire. The questionnaire was then administered to 4000 potential participants.
within the target age range for FOBT screening (50-75 years) in South Australia. Study two analysed questionnaire data to determine associations with stage of readiness (intention) for rescreening. Following survey completion, respondents (survey response rate of 49%) were provided with three annual offers to screen with FOBT. Data collected during the questionnaire phase were used to identify variables predictive of rescreening adherence. Univariate and multivariate modelling were used to determine associations with intention and adherence.

Results of study one revealed that many of the factors previously associated with initial screening (e.g., perceived barriers, benefits and social influence) were associated with rescreening. However, specific barriers, for example, maintaining a screening routine, were identified for rescreening. In addition, previous screening experience appeared to influence attitudes toward future participation i.e., improved participants' self-efficacy with regard to future participation and reinforced the perceived benefits of participation.

Study two found that almost 30% of prior screeners were non-adherent with rescreening. Social cognitive (self-efficacy, perceived barriers and benefits, social influences, implementation intentions) and demographic/background variables (age, knowledge, and health insurance coverage) were associated with rescreening intention. Conversely, in study three, only few social cognitive variables (perceived barriers, self-efficacy and response efficacy) were marginally associated with screening adherence across three rounds of screening. The demographic variables gender, insurance and marital status better differentiated patterns of adherence. When a measure of satisfaction with prior FOBT screening was added to the multivariate models in study three, none of the social cognitive variables significantly predicted adherence.
Satisfaction with prior screening substantially increased rescreening intention and adherence by 13% and 42% in studies two and three respectively.

Results of the thesis indicate that although social cognitive variables differentiated intentions to rescreen, when demographic variables and satisfaction with prior screening were held constant, social cognitive variables did little to predict rescreening adherence. Satisfaction with prior screening was an important predictor of both rescreening intention and adherence. Exploration of the factors contributing to satisfaction with screening may provide an important opportunity to modify and improve screening services to encourage rescreening. Several demographic variables were also found to have a substantial impact on intention and adherence. An investigation of how these demographic and background factors interact with social cognitive variables may allow for greater tailoring of messages to encourage rescreening.
Declaration

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Chapter four, paper two:


Amy Claire Duncan

Signed: _______________________________ date: _______________________________
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List of Abbreviations

BHS- Bowel Health Service

CRC- colorectal cancer

FOBT- faecal occult blood test

FS- flexible sigmoidoscopy

HBM- Health Belief Model

MHLC- Multidimensional Health Locus of Control

NBCSP- national bowel cancer screening program (Australian)

NBCSPP- national bowel cancer screening pilot program (Australian)

NHMRC- National Health and Medical Research Council

RCT- randomised controlled trial

SCT- Social Cognitive Theory

TPB- Theory of Planned Behaviour

TTM- Transtheoretical Model of Behaviour change

PMT- Protection Motivation Theory