Reviewer’s report

**Title:** Assessing awareness of colorectal cancer symptoms: Measure development and results from a population survey in the UK

**Version:** 1 **Date:** 23 December 2010

**Reviewer:** S Elizabeth McGregor

**Reviewer’s report:**

The Bowel/Colorectal CAM would be a useful tool for surveillance of population knowledge about colorectal cancer and to evaluate public education and other interventions designed to increase awareness of colorectal cancer (CRC) including symptom recognition, risk factors and availability of screening programmes. This specific project is part of a larger effort to increase awareness of early warning signs (NAEDI) in the UK and relates directly to the goals of NAEDI. The background succinctly presents the need for this type of instrument and how the availability of a valid instrument would be useful. The methods proposed are appropriate to the research goals.

The discussion sections are well written and place the findings in context with other relevant research and highlight the need for interventions and public education to increase awareness about CRC based on the population survey results presented in Study 2. Discussion of the implications of validating the Bowel CAM using a self-administered survey and population estimates based on interviewer administered surveys would be helpful.

Most of my comments are related to the reporting of methods and results section and are fairly minor but necessary prior to publication.

**Essential Revisions:**

The paper presents findings from 2 different studies and the writing style is quite repetitive with information often repeated in the methods section and the results. Descriptions of the Bowel CAM are repeated in studies 1 and 2 although the terminology is inconsistent between study 1 and 2 (e.g., open and closed items vs. prompted and unprompted items). In Study 1 it is not clear whether open and closed questions were combined and whether all items received the same weight. It is not clear whether the same scoring algorithms were used in the two studies. The CAM should be described once (including a description of how CAM scores and subscales were generated) and consistent terminology used in describing results from the two studies.

References should be provided for methods (e.g., “known groups” method) and for the cutoffs used to assess various performance characteristics of the Bowel CAM. The statistical tests used to assess various instrument characteristics should be specified in the methods section.

Study 1
Basic demographic information (age group; gender; educational attainment) should be provided for all three samples and could easily be added to Table 1. It is not clear why n=35 from sample 2 for the item difficulty assessment while all 70 were used from sample 2 in other analyses. If it is only the control group this should be stated.

Why were two items excluded from the assessment of internal reliability as “they did not relate to overall awareness” – was this determined by some type of analysis or was it planned a priori?

More detail should be provided in some instances – for example, were the 16 experts who reviewed the items for the scale included in the 16 experts used in Sample 3 to evaluate the questionnaire? Were any experts in cancer education and/or public education included in the expert panel which generated the items? What was the planned time frame and justification for the test-retest evaluation?

Discretionary Revisions
Study 2
Tables 3 and 4 could be used to provide results on important subgroups (e.g., men vs. women, SEG groups) in order to provide the reader with more information and to allow the text in the results section to focus on trends in the findings.

Several acronyms should be explained and explanations provided (e.g., NICE, SES categories, ITV), particularly for readers not familiar with the UK setting.

Overall this is an interesting paper reporting on the development of a measurement tool that will be useful in evaluating efforts to increase public awareness of CRC. Careful attention to manuscript preparation will enhance clarity in presenting these findings.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests.