Author's response to reviews

Title: Comparison of breast and bowel cancer screening uptake patterns in a common cohort of South Asian women in England

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Author's response to reviews: see over
Dear Editor

Enclosed is a revised version of the paper ‘MS: 1286118942267092 - Comparison of breast and bowel cancer screening uptake patterns in a common cohort of South Asian women in England’.

We would like to thank the two reviewers for their interesting and useful comments, and have incorporated their suggestions, where possible, into the updated version of the manuscript. A point-by-point response to the concerns raised by each reviewer is given below.

With regard to the article ‘Inequalities in reported use of breast and cervical screening in Great Britain: analysis of cross-sectional survey data’ recently published in the BMJ, there are a number of key differences between this article and our own.

The BMJ article focuses on a woman’s ‘reported use’ of breast and cervical screening, i.e. whether a woman has ‘ever’ had a mammogram and/or a smear test. The results are based on cross-sectional survey data for a sample of just over 3000 women across the UK. In contrast, our article looks at actual screening uptake for breast and bowel screening in response to routine invitations for specific screening rounds. The results are based on a sample of over 70,000 women from the Coventry and Warwickshire region.

The aims of the two articles are very different. The BMJ article focuses on linking a woman’s reported use of breast and cervical screening to various socio-demographic characteristics. In this respect, the results are heavily dependent on honest and accurate answers from the respondents and are not focused on specific screening rounds. The study is national (not regional) and provides an overview rather than a detailed account. Our article makes use of NHS screening data which provide a detailed and accurate account of an invitee’s screening history. We were able to look at uptake of bowel screening and compare this to uptake of breast screening over a fifteen year time period, therefore identifying key trends in behaviour.

Another major difference between the two articles is the focus on socio-demographic characteristics. Along with many other traits, the BMJ article includes ethnicity as a characteristic and regards a woman as ‘white’ or ‘non-white’. Our article focuses heavily on ethnicity and contrasts the screening behaviour of South Asian women, separated into five religio-linguistic groups, with the behaviour of the non-Asian majority. In this respect, we identify specific inequalities (i.e. those relating to ethnicity) in access to cancer screening. While the authors of the BMJ paper were able to identify inequalities in screening, they were not able to pin-point specific reasons for the inequalities.

We feel that the articles are complementary accounts of different aspects of screening. Overall, they represent the aims of Julietta Patnick, Director of NHS Cancer Screening Programmes, to draw together as much evidence as possible on cancer screening in order to improve access across the board.

Kind regards,

Dr Charlotte Price
Responses to reviewer 1: John Brodersen

Major Compulsory Revisions

1. This is methodologically a solid paper to which I have no comments on the used methods and the revealed results. All my general comments to the manuscripts concern the discourse of the paper, which is a pure utilitarian discourse.

The authors state throughout the paper that high screening participation is ‘positive’ and a ‘success’. In relation to no participation the authors use words like; ‘poor’ and ‘refuse’. However, all cancer screening induce harm, some also do good. Therefore, as there are important trade-offs between benefits and harms with cancer screening, a decision to attend is not more ‘correct’ than a decision not to attend, and this must be made clear to potential participants -and to the reader. Therefore, health authorities that wish to offer cancer screening should offer it, and not advocate it and the invited citizens should be given adequate evidence-based information to allow them to make a truly informed decision. Therefore, the introduction, discussion and conclusion should be revised according to a balanced and evidenced based discourse.

Response to (1): The authors accept the importance of forming a balanced argument for and against cancer screening and have amended the text accordingly. The general discourse of the paper has been altered to move away from the perceived utilitarian approach.

2. Another important critical mistake the authors conduct is to report on poor and not best available evidence of the benefits of the two cancer screening programmes. In the introduction observational studies and data are reported about the benefits of the two screening programmes. Why have the authors not used the best available evidence of the benefits and harms of screening for breast and bowel cancer? Two recently updated Cochrane review are available. In relation to best available evidence the authors should also in a balanced way inform the reader about the benefits as well as the harms of both screening programmes. This should of course be communicated in an understandable way using absolute risk reduction and/or number need to screen and harm as a minimum. The same denominators should also be used to be able to compare the benefits and harms. All these facts are available in the two Cochrane reviews.

Response to (2): References to both of the Cochrane reviews mentioned above have been added to the paper. The relative reductions in mortality for both breast and bowel screening have been reported. The authors have also updated the references to include more recent evidence on the benefits of cancer screening.

Responses to reviewer 2: Preety Kalra

Major Compulsory Revisions:

1) Research question is looking at a person’s ethnicity and how that influences screening patterns and yet the authors only examine religious differences between subgroups within the South Asian community.

Response to (1): See response to (3) below.

2) Re-examine data by examining additional ethnic factors including country of origin, language spoken at home, and the ethnic and cultural backgrounds of those in the sample. For example, examining whether individuals are Gujarati, Punjabi, etc. and whether any ethnic behavior patterns pertaining to the ethnic groups influences screening behavior.
Response to (2): Unfortunately, there is a lack of ethnic monitoring data collection in the UK, so although the authors agree that it would be very interesting and useful to analyse the data in some of the ways suggested above, the relevant data is simply not available.

With regard to a person’s country of origin, research has shown that this provides a poor indicator of cultural or ethnic origin. In a 2005 report (Szczepura et al, 2005), it was estimated that less than 40% of the UK black and ethnic minority population can be identified by birthplace due to the increasing number of people in this group who are UK-born.

The above points have been added to the discussion section of the paper and two extra tables have been included (Tables 1 and 2) to show categories of ethnic grouping in the UK census and characteristics of South Asian groups.

3) It is important to discuss how the authors define “South Asian” and more critically talk about reasons for how they defined subgroups within the sample. If the hypothesis is that screening differences both within and between is due to religious differences rather than that needs to be included in introduction and the discussion.

Response to (3): The hypothesis is not focused specifically around religious differences. The term ‘South Asian’ encompasses five religio-linguistic groups determined by combining the language and religion information obtained from the Nam Pehchan name recognition software. Due to the lack of ethnic monitoring data in the UK, the use of name recognition software is a valuable tool for analysing data with regard to a person’s ethnicity. A more in-depth explanation of the ‘South Asian’ grouping has been added to the ‘Data Preparation’ section of the paper.

Minor Essential Revisions:

4) Charts and data need to be presented on the numbers of individuals by religious affiliation within the South Asian category, ideally by the percent composition of all the different religious groups in the sample.

Response to (4): Figure 2 has been amended to include the three main South Asian religio-linguistic groups identified (Sikh, Muslim, Hindu). The authors consider that incorporating this level of information into Figure 1 would detract from the key information in the figure. However, the authors are prepared to create a more detailed figure which could be displayed in an online appendix if this is required.

The two results tables (Tables 3 and 4) in the paper already show a breakdown by religio-linguistic group.

Discretionary Revisions:

5) Greater discussion of what the authors believe is the mechanism for religious differences and how that impacts cancer screening.

Response to (5): The authors agree that this is a very interesting question but feel that the area is too broad to incorporate a detailed discussion into this paper, which is primarily a quantitative study. The authors suggest that in-depth qualitative research is needed in order to fully investigate this.

6) Greater discussion on differences they found between breast and bowel screenings.
Response to (6): This is again an interesting area that requires further research. The authors believe that the main differences relate to the newness of the bowel screening programme and the ‘do it yourself’ nature of the screening test. Further information has been added to the discussion section of the paper which states that South Asian invitees were more likely to require more than one FOBT home kit (more than four in some cases) during the UK colorectal pilot programme. This highlights issues around being able to (a) understand how to carry out the test and (b) perform the test correctly, possibly linked to levels of literacy.

7) Recommendations in discussion section include targeting information to first time invitees, however, the data they present suggest that for South Asian women, completing the first screening does not increase the likelihood of completing subsequent screenings.

Response to (7): Further recommendations have been added to the discussion section of the paper and a clarification of the reasoning for targeting first time invitees has been included.

8) Have the authors considered doing a multivariate analysis with either South Asians as a predictor variable or including a variable in the model for ethnicity?

Response to (8): The authors used logistic regression in a previous paper (Szczepura et al., 2008) to investigate the effect of ethnicity, as defined in the current paper, on uptake of breast and bowel screening. The analyses were also adjusted for age, socio-economic status and, in the case of bowel screening, gender. The reviewer is referred to: