Author's response to reviews

Title: Body mass index and participation in organized mammographic screening: a prospective cohort study

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Author's response to reviews: see over
BMC Cancer

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Dear Editor,

Hereby we resubmit the manuscript ‘Body mass index and participation in organized mammographic screening: a prospective cohort study’ to BMC Cancer, after additional revisions, as requested by Referee 1. Bellow we make point by point reply to each reviewer’s concern, and explain how we revised the article to address these issues.

We feel strongly that these revisions have improved the manuscript and hope that you will find the comments addressed to your satisfaction, and our article acceptable for publication in your journal.

Referee 1:

The abstract and paper in general, needs some language vetting
Please be consequent in the term you are using; add the small words that can make the content more available for the reader; remove the words that makes the sentence confusing ? the paper has really improved from the first version. No major revisions are required, in my mind, but there is still several possibilities for improvements.

Abstract
Line 27: write ‘use of hormone therapy (HT), previous’
Authors: Done.
Line 30: A total of 5,134 women who?
Authors: Done.
Line 34: Adjuster for other risk factors?
Authors: Done.
Line 33-35: split the long sentence
Authors: Done.
Line 37: define underweight
Authors: Done.
Line 38: the values of the OR and CI should be given in a more straightforward way
Authors: Done.

Introduction
Please read paragraph 2 carefully and make some corrections in the wording
Obesity is associated with breast cancer risk in particular among postmenopausal women [4], and possibly in premenopausal women when accounting for mammographic density [5]. Obesity is further an independent predictor for poor breast cancer prognosis [6]. Recent reviews [7-9] of mainly cross-sectional studies suggested that obesity is associated with non-participation in mammographic screening, in particular among Caucasian women, whereas the same risk pattern was not as consistent among black American women. Cultural differences in the perception of obesity therefore seem to have an impact on women’s body-perception and their compliance with organized mammographic screening [7, 8].

We changed to ‘Obesity is positively associated with breast cancer risk in postmenopausal women [4], and possibly in premenopausal women when accounting for mammographic density [5]. Obesity is also related to poor breast cancer prognosis [6]. Recent reviews [7-9] of mainly cross-sectional studies suggested that obesity is associated with non-participation in mammographic screening, in particular among Caucasian women, but not among black American women. This implies that cultural differences in the perception of obesity seem to have an impact on their compliance with organized mammographic screening [7, 8].’
Line 72: where is it correct to put the important word ?objectively??

Authors: we have changed: ‘with measured BMI and objectively assessed screening participation’ to ‘with objectively measured BMI and screening participation and’

Methods

Line 82: free of all kind of cancers or breast cancer only?

Authors: all, this was added now.

Line 106: breast implants instead of prosthesis?

Authors: corrected.

Line 116-119: please reword- make it easier to understand

Authors: We rewarded this ‘Furthermore, we defined dichotomous indicator of previous screening history at cohort baseline (1993-97), defining previously screened (1) as women who participated in mammographic screening at any time before cohort baseline (1993-97), and firstly screened (2) as women who participated in mammographic screening for the first time after cohort baseline (1993-97).’ To ‘Furthermore, we defined previously screened (1) as women who participated in mammographic screening before cohort baseline (1993-97), and firstly screened (2) as women who did not participate in screening before cohort baseline, and have thus participated in mammographic screening for the first time after cohort baseline (1993-97).’

Authors: true, we corrected this and deleted ‘further’.

Results

Line 139: invited to C m s program?

Authors: corrected.

Line 139-140: I do not understand that you excluded the women invited to screening before DCH baseline ? do you mean invited and participated only before DCH baseline? Please clarify.

Authors: yes, and this is corrected now.

Line 144-148: less educated, more likely to be etc ? please put p-values in Table 1 ? indicate statistical significant differences.

Authors: corrected.

Line 156: p=0.0002 ? p<0.001 ? defined in Methods?

Authors: corrected.

Line 173- delete ? look at the CI ?

Authors: I am not sure what reviewer means by this.

Discussion

Please split paragraph 2 into several paragraphs discussing different topics.

Authors: Done.

Line 209: please give a reference

Authors: Done.

Line 251: Why might diabetes be an important barrier for screening attendance?

Authors: Added this sentence: ‘Perhaps, diabetes may present competing health burden due to which diabetic women lack resources to go attend screening.

Line 256: is the prognosis of breast cancer in women with diabetes different compared to thos without diabetes?

Authors: Yes it is, as De Bruijn KM has documented this in Reference #34. We added this as well on line 256 (new line 262).

What is the average BMI in the Danish population of women aged 50-69 years old?

Authors: I am afraid we do not have much better data on that then from this cohort – there is EU survey which states that average BMI in Danish adults is 25.5, and another small survey based on 6,000 people which states the same, but age specific BMI in women I couldn’t find better data than this cohorts.

Tables:

Table 1: Please add p-values (an indicator of statistical significant differences)
Author: One of our coauthors is against adding this p-values, as we have another study (effect of BMI on MD and breast cancer risk and other factors) submitted, where some of these factors presented in Table 1 are tested and looked into detail, with a regression model, and where p-values are given. Thus, she feels that this would be giving away some of the other story in different article. We want by Table 1 to show what population we have, but rather not to give a statistical test which quantifies with a statistical significance some of these differences.
I hope that Reviewer can understand and accept this argument from our coauthor group.
Table 2: No comment
Table 3: No comment
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