Reviewer’s report

Title: Knowledge of risk factors, beliefs and practices of female healthcare professionals towards breast cancer in Lagos, Nigeria.

Version: 2 Date: 3 November 2008

Reviewer: Oladimeji Oladepo

Reviewer’s report:

Version: 2 Date: 31st October, 2008
Reviewer: Oladimeji Oladepo

Major Compulsory Revisions

1. Title: The title needs to be reframed since the study was conducted in one institution. The present title gives the impression that the study was conducted in diverse sites. While the title has been modified to “Knowledge of risk factors, beliefs and practices of female healthcare professionals towards breast cancer in Lagos, Nigeria”, the addition of “in a Tertiary Hospital” or “in a Tertiary Institution” before “Lagos” is recommended to ensure better clarity of where the study was conducted.

Introduction

2. Although the author referenced at least 8 Nigerian studies on breast cancer, the key issues from these studies should have been used in presenting a stronger justification. It is unclear what the operational definition of ‘Regular Breast examination’ as used in the text is. This must be properly defined.

1. While some improvements have been made in this section, more specific literature from those cited in the “Discussion” section on health care providers Knowledge, beliefs and practices should be used to sharpen the study focus.

2. “Studies in Nigeria on knowledge, attitude and practice of healthcare providers towards breast cancer are few and were conducted mainly among nurses. In one of such studies, Nigerian nurses were found understand the risk factors [17]”. The references for the “few” studies were not provided except the only one on nurses.

3. While the author presents an introduction reflecting the importance of cancer research, the justification for conducting this study is not adequately described
The research questions, study Hypothesis and conceptual framework are not available for review. Furthermore, the sampling and data collection processes are not clearly described.

“Adequate knowledge and positive attitude towards breast cancer screening are essential for female healthcare professionals if they are to play their expected role”. While this justification is relevant, it probably only reflects the strong reason for conducting this study. In what ways will the study enhance further understanding of the breast cancer detection practices of the health workers themselves that has serious implications for their own health beyond “playing their expected role”?

b. The theoretical framework is still missing.

Sampling.
4. Although the author selected 207 respondents randomly from the eligible population, the process of selection is unclear. It is difficult to determine the appropriateness of the technique in the absence of full description.

The explanation that “Participants were selected using stratified random sampling method with proportional allocation” is good but insufficient. The description excludes details in the selection process after the stratification of health workers into their professional affiliations.

5. In page 5, the statement: "The institution had about 650 female health care professionals......” is of concern as accurate number of female professionals in the study institution is vital and must be provided.

The specific number provided is satisfactory.

6. The administration of the study tool needs to be clarified. Were the questionnaires completed immediately on receipt by the respondents in the presence of the author or were they collected and returned some hours or days later?

The new information provided on procedure for questionnaire administration confirms the initial validity concerns of this study. The process of distributing the questionnaires through sectional heads to selected respondents who in turn take the questionnaires away for completion within 24 hours and return same to respective heads provides ample opportunities for “contamination” of respondents’ answers. For example, respondents within 24 hours of obtaining the questionnaires have limitless opportunities to consult medical textbooks and other sources of information e.g. colleagues on knowledge questions and other issues in the tool. The extent of these possible sources of “contamination “might vary between different professionals enrolled in the study. This anomaly could have been avoided were the questionnaires given to respondents for immediate
completion and retrieval in the presence of research assistants. Compare the data gathering method used in this study (“leave instrument for 24 hours” with study subjects with the “interview” method adopted in the Australian study cited in the paper- “Report from Australia however revealed that General Practitioners have limited knowledge of some aspects of breast cancer risk factors with only 25% of those interviewed in the study recognising increasing age as breast cancer risk factor [19]”. In conclusion, given the data gathering process employed in the current study, convincing explanation is needed to ascertain if the data collected were not “tainted” to jeopardise the validity of the entire study. This is the greatest challenge of this paper.

7. While the sample size selection based on proportional allocation is in theory desirable for this study, the final sample sizes of different professionals in this study is skewed much in favor of nurses (141 respondents) and doctors (45 respondents) compared with other professionals - laboratory scientists (13 respondents), pharmacists (4 respondents) and physiotherapists (4 respondents ). This raises serious validity concern which the author must provide convincing explanation.

The explanation provided- “Female professionals who were neither doctors nor nurses were relatively fewer in the study institution as highlighted in ‘Methods’- This is responsible for the skewed sample size following proportional representation” is noted. This suggests that the disproportionate few numbers of female professionals who were neither doctors nor nurses were known before the conduct of the study. If this was the case, efforts should have been made to address this challenge initially by modifying the sampling technique and justifying same.

Analysis

8. Comparison of groups of professionals with skewed sample sizes diminishes the opportunity for reaching valid conclusions. A comparison of the two dominant professionals (nurses and Doctors) might help address this concern. This is critical and needs full explanation.

While the statement “Difference in knowledge score between doctors and nurses was statistically significant (p< 0.001)” in the revised text clarifies earlier comment, a supporting table is necessary to show how the statistically significance conclusion is reached. The same applies to other variables that specifically compare nurses and doctors.

9. Grouping the knowledge scores into > 50 = ‘Good’ and <50= poor’ seems less discriminatory for health workers given their professional preparation. Categorizing the scores into four dimensions ‘Excellent’ ‘very good’, ‘Good’ and ‘poor’ will provide deeper insight.
The newly re-categorized knowledge scores and statistical analyses are satisfactory.

Results

10. Re-present the demographic characteristics of the study professional groups in Table 1; and disaggregate in other tables.

The disaggregated tables are satisfactory, though specific tables that compare only Nurses with doctors are not provided.

The total number of “doctors” and “other respondents” in some of the demographic variables presented in Table 1 do not tally.

A word of caution on the use of the phrase “practice BSE” given the uncertainty in self reports. A suggestion is “reportedly practice BSE”

11. Although laboratory scientists were merged with pharmacists (4 respondents) and physiotherapists (4 respondents), these sample sizes were disproportionately lower compared with the two dominant groups-nurses (141 respondents) doctors (45 respondents), raises serious validity concern. The author needs to justify this.

See comments in item 7 above

Measurement of Breast Cancer screening practices

12. Two statements under the measurement of Breast Cancer screening practices: “Two hundred and five participants (99%) were aware of BSE” and “However, a lesser proportion of (85%) was familiar with CBE” are NOT measures of BSE practice. Similarly awareness of mammography does NOT constitute practice. These should be expunged and put under awareness and knowledge sub heading.

Action taken is satisfactory

13. While one of the objectives of the study is to assess beliefs concerning breast Cancer treatment, a few variables some variables that were measured such as, “cancer is major problem in Nigeria” and “There is significant breast cancer awareness in Nigeria” is not direct measurements of breast cancer treatment. (pg 22). These should be deleted from the analysis.

Action taken is satisfactory

14. The comparison of BSE practice between the different professional groups
with skewed sample sizes raises validity concerns.

See comments in item 7 above

Though it was stated in the result section that BSE practice is compared between doctors and nurses, a table is needed to see “the big picture” of the statistical significance.

Discussion

14. In light of the sample size challenge, the attribution made in respect of the findings of this study are weak.

15. The author in many instances, inappropriately compared findings from community based studies on BSE knowledge /awareness with this hospital -based study.

One critical issue that has not been addressed is “study limitations”. This is substantial enough to merit full description in the paper.

Minor Essential Revisions

16. The statement in the last paragraph, “Mammography is a more ….. sensitive Method ….. breast cancer in Nigeria” does not add value to the discussion but can be reframed around health care professionals.

Action taken is satisfactory