

PEER REVIEW HISTORY

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ARTICLE DETAILS

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| TITLE (PROVISIONAL) | Factors important for women who breastfeed in public: a content analysis of review data from FeedFinder. |
| AUTHORS | Simpson, Emma; Garbett, Andrew; Comber, Rob; Balaam, Madeline |

VERSION 1 - REVIEW

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| REVIEWER | Dr Iain Williamson De Montfort University, Leicester |
| REVIEW RETURNED | 29-Apr-2016 |

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| GENERAL COMMENTS | <p>This is a novel study that uses unsolicited data collected through a mobile phone app to explain some of the key factors in why women recommend particular places for breastfeeding in public.</p> <p>Generally the study is designed and described appropriately and I have no concerns over ethical or methodological aspects (although see minor comments below).</p> <p>The paper is quite tightly written. However, in its current form the paper feels overly descriptive and atheoretical and I would recommend that the authors are encouraged to consider the following enhancements:</p> <ol style="list-style-type: none">1. Introduction - The problem of breastfeeding in public is presented with some reference to statistics and research evidence. However, I feel the authors should make reference to the legal protections offered to mothers nursing infants of up to 26 week and reflect more fully on some of the issues that make breastfeeding in public more or less taboo or acceptable (how breastfeeding is 'performed'; the age of the infant etc). There has been a body of more theorised literature recently that tries to explain some of the challenges and processes more theoretically merits mention here (notably Dawn Leeming et al's "Socially Sensitive Lactation" paper in <i>Psychology & Health</i>, 2013; Callaghan & Lazard's paper in the same journal (2012))2. The methodological approach taken to content analysis merits more explanation and justification (see Hsieh and Shannon, 2005 paper in "Qualitative Health Research"). There appears to be acceptable evidence of inter-rater reliability.3. Analysis - I found elements of this section a little confusing - possibly because table 1 includes both positive and negative elements - it felt that some of the important information rather got glossed over - issues like exclusion and stigma. Table 1 might work better with separate columns for positive and negative elements where appropriate. Table 2 is quite useful but I did wonder if all |
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| | <p>reviews were fully positive or negative as implied. Didn't some reviews contain both positive and negative elements? I also wondered if the sequencing of this section was quite optimal. I also wondered if there was potential for grouping some of the categories together into more super-ordinate categories and a little greater interpretation could be applied. This would allow the authors to provide something a little more sophisticated and potentially useful to both academics and practitioners.</p> <p>4. In the discussion I'd like to see fuller development of why the ratings are mostly positive - this doesn't tally with a lot of other evidence and it may be something about how the women are using the app. I'd also like to see more thought given to how the findings could be used by public health bodies and service providers as mentioned in the abstract.</p> <p>5. To my view, the paper has the potential to offer a greater understanding of how women are using the app and also an analysis of what they are saying. It has the potential to be a useful and interesting resource but greater relation to theory and thinking about how the analysis is presented and discussed would be welcome.</p> |
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| REVIEWER | Louise Condon Swansea University Wales, UK |
| REVIEW RETURNED | 07-May-2016 |

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| GENERAL COMMENTS | <p>This is a very well written paper which explains comprehensively how the study was carried out. The method of rating of responses was robust, giving confidence of internal validity.</p> <p>I have requested revision as although the authors acknowledge that they are unable to report on the socio-demographic characteristics of the respondents, this is not always sufficiently stated when presenting findings. A distinction needs to be clearly made at all points between the 'breastfeeding public' and those who provide reviews of venues on FeedFinder, to whom these findings relate. While age, ethnicity and social class are known to impact on breastfeeding behaviours, this article is unable to provide this information about respondents. If information was available about the socio-demographic characteristics of women who make use of mobile phone apps and add reviews this could be added to the background and would contribute to making clearer the characteristics of respondents.</p> <p>More information about the venues attended by respondents would be useful (perhaps in an additional table) as it is likely that mothers will have a different experience in a supermarket café in a disadvantaged area than in an independent café in an area with high breastfeeding rates. My own work suggests that mothers belonging to potentially stigmatised groups, such as teenage mothers or mothers from ethnic minority groups, are reluctant to breastfeed in a public place, as this is seen as adding to existing stigma (Condon et al 2003, 2012). If more was known about the types of venues visited this would give more specific evidence about the experiences and needs of breastfeeding mothers. Additionally if it were possible to provide the index of multiple deprivation (IMD) relating to the area in which the venue is situated from the FeedFinder data (and presumably as mothers are rating venues this information would be available) this would give a better perspective on the types of</p> |
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| | <p>venues attended and who respondents are likely to be.</p> <p>In considering the limitations of the study the authors could usefully consider why the findings from this study differ from the 2010 Infant Feeding Survey (IFS) findings. The IFS, which is a national study with a large sample including representation from areas of high IMD, found that 47% of breastfeeding women found it difficult to find a suitable place to breastfeed in public and 11% had been stopped or made to feel uncomfortable. This study of people posting reviews on FeedFinder states that 80% of venue reviews were positive and only 0.2% of the data set overall experienced a negative reaction from the public. The IFS data are presented in the introduction but this difference in findings could be addressed in the discussion.</p> <p>Overall the paper is very interesting and makes a contribution to knowledge about this important public health issue.</p> |
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| REVIEWER | Dr Sally Dowling University of the West of England, Bristol, UK |
| REVIEW RETURNED | 09-May-2016 |

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| GENERAL COMMENTS | <p>This is an interesting paper, addressing an important issue for breastfeeding researchers and supporters. I have a few concerns but with revision this paper will make a valuable contribution to the literature on breastfeeding in public. It is novel, taking women's use of new technology to support breastfeeding as it's focus.</p> <p>However, I found some aspects of the paper confusing - you describe it as a qualitative study and yet you discuss generalisability; not usually an issue in qualitative research. Despite being qualitative enquiry the focus of the reporting is on the numerical data and descriptive statistics. The quotes included are powerful but the overall emphasis is on the reporting of percentages and numbers, which feels strange in a qualitative piece (perhaps it is better labelled differently?). Some references to the theoretical underpinnings of the method of analysis might help make this clearer.</p> <p>The early part of the paper talks about the UK context, then you say that the App has over 5000 users worldwide - and it isn't clear until later that you are only analysing the data from the UK users. It would be good to make this clear earlier. Equally a reader is left with questions about FeedFinder - who is it designed by? Who is conducting the larger research study?</p> <p>I think you could draw on wider and more recent references in your introduction section. One example is when you say '...socioeconomic groups where breastfeeding is seemingly less common...' - breastfeeding IS less common in some groups and in some areas in the UK and there is published research that can be referred to supporting this (you refer to a paper from outside the UK, from 1999).</p> <p>There are a few style/proof reading issues - I would avoid using 'aren't' (p.3), women's (p.3) should be 'woman's', ' In addition to the Infant Feeding Survey...' might read better 'To complement the findings of....' (also p.3). 'Clean(lines)' on p.4 should read 'Clean(lines)'.</p> |
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1:

This is a novel study that uses unsolicited data collected through a mobile phone app to explain some of the key factors in why women recommend particular places for breastfeeding in public.

Generally, the study is designed and described appropriately and I have no concerns over ethical or methodological aspects (although see minor comments below).

The paper is quite tightly written. However, in its current form the paper feels overly descriptive and atheoretical and I would recommend that the authors are encouraged to consider the following enhancements:

1. Introduction - The problem of breastfeeding in public is presented with some reference to statistics and research evidence. However, I feel the authors should make reference to the legal protections offered to mothers nursing infants of up to 26 week and reflect more fully on some of the issues that make breastfeeding in public more or less taboo or acceptable (how breastfeeding is 'performed'; the age of the infant etc). There has been a body of more theorised literature recently that tries to explain some of the challenges and processes more theoretically merits mention here (notably Dawn Leeming et al's "Socially Sensitive Lactation" paper in *Psychology & Health*, 2013; Callaghan & Lazard's paper in the same journal (2012))

Thank you for your suggestion, we have added in some key points from the literature in both the introduction and discussion. We are currently planning a separate manuscript which will be grounded in more theorised literature around breastfeeding and the socio-cultural differences experienced as mentioned in your comment and the above literature. FeedFinder provides us with a wealth of data from all transactions performed in the app (e.g. opening the app, searching for venues, mapping venues, leaving reviews, etc.) as well as the parameters within those actions (e.g. longitude and latitude coordinates). At present we are currently analysing that data to try and unpack some of the usage behaviour in areas of high and low deprivation as well as a more comprehensive analysis on the content of review data in these areas (e.g. is privacy a significant concern in areas of high deprivation where breastfeeding is considered more taboo). We value the comments you have provided on this topic and will use the literature to inform our future writing.

2. The methodological approach taken to content analysis merits more explanation and justification (see Hsieh and Shannon, 2005 paper in "Qualitative Health Research"). There appears to be acceptable evidence of inter-rater reliability.

We have extended our study design section to include further explanation on the rationale of choosing a conventional content analysis.

3. Analysis - I found elements of this section a little confusing - possibly because table 1 includes both positive and negative elements - it felt that some of the important information rather got glossed over - issues like exclusion and stigma. Table 1 might work better with separate columns for positive and negative elements where appropriate. Table 2 is quite useful but I did wonder if all reviews were fully positive or negative as implied. Didn't some reviews contain both positive and negative elements? I also wondered if the sequencing of this section was quite optimal. I also wondered if there was potential for grouping some of the categories together into more super-ordinate categories and a little greater interpretation could be applied. This would allow the authors to provide something a little more sophisticated and potentially useful to both academics and practitioners.

We have made some changes to the results section and added in further analysis linking the venues to the IMD scores. As expected, some of the reviews contained both positive and negative elements and we coded these as neutral. We went back through the dataset, and can confirm that there were no instances of stigma/discrimination in the reviews coded as neutral. If the negativity had been

directed toward the practice of feeding, then it would have been coded as negative. We have added a further column in table 1 which identifies the proportion of each category that identified as a negative review. Thank for your suggestions on the sequencing of the section, we have re-read the paper and asked a colleague to read the paper and still consider the sequencing to make sense. If the you have a specific suggestion of how the sequencing should be changed, we would be happy to review it.

4. In the discussion I'd like to see fuller development of why the ratings are mostly positive - this doesn't tally with a lot of other evidence and it may be something about how the women are using the app. I'd also like to see more thought given to how the findings could be used by public health bodies and service providers as mentioned in the abstract.

We have included a section in the paper on how the data from FeedFinder may be used in practice; with business and public health professionals (headed section in discussion). We agree with your comment that the positive ratings are counter to other evidence reported and this may be due to how the women are using the app. We have included a discussion of the methodological differences. We have made substantial changes to the paper based on the comments provided from all reviewers but are limited due to the recommended word limit. We hope you find the revisions adequate.

5. To my view, the paper has the potential to offer a greater understanding of how women are using the app and also an analysis of what they are saying. It has the potential to be a useful and interesting resource but greater relation to theory and thinking about how the analysis is presented and discussed would be welcome.

Thank you for your very constructive and positive comments on our paper, we have made amendments based on the scope of this research and word limit. We have included further analysis which we hope you will agree gives this paper more weight and attempted to address as many comments as possible from all reviewers. We are planning further analysis and writing to complement this research and we hope you can consider this if you are to review the resubmission.

Reviewer: 2

This is a very well written paper which explains comprehensively how the study was carried out. The method of rating of responses was robust, giving confidence of internal validity.

I have requested revision as although the authors acknowledge that they are unable to report on the socio-demographic characteristics of the respondents, this is not always sufficiently stated when presenting findings. A distinction needs to be clearly made at all points between the 'breastfeeding public' and those who provide reviews of venues on FeedFinder, to whom these findings relate.

Thank you, we have made changes to the manuscript which now includes a consistent use of 'FeedFinder users' to describe the breastfeeding women we are referring to throughout.

While age, ethnicity and social class are known to impact on breastfeeding behaviours, this article is unable to provide this information about respondents. If information was available about the socio-demographic characteristics of women who make use of mobile phone apps and add reviews this could be added to the background and would contribute to making clearer the characteristics of respondents.

This is a very valid and important point and we agree wholly that this would be a useful contribution to understanding the research, however, we are unable to report on such characteristics of the user

base as we do not collect this information during registration with the FeedFinder application.

More information about the venues attended by respondents would be useful (perhaps in an additional table) as it is likely that mothers will have a different experience in a supermarket café in a disadvantaged area than in an independent café in an area with high breastfeeding rates. My own work suggests that mothers belonging to potentially stigmatised groups, such as teenage mothers or mothers from ethnic minority groups, are reluctant to breastfeed in a public place, as this is seen as adding to existing stigma (Condon et al 2003, 2012). If more was known about the types of venues visited this would give more specific evidence about the experiences and needs of breastfeeding mothers.

Thank you for this very valid comment. We are currently able to categorise 41% of the venues using the Foursquare API and we have described this analysis in our results.

Additionally, if it were possible to provide the index of multiple deprivation (IMD) relating to the area in which the venue is situated from the FeedFinder data (and presumably as mothers are rating venues this information would be available) this would give a better perspective on the types of venues attended and who respondents are likely to be.

Thank you. We have carried out further analysis on the IMD scores and location of venues mapped, see results section headed IMD and venues. In addition, we are planning to complete a further analysis looking into the content of reviews across the different venues in areas of high deprivation and areas of low deprivation but it is beyond the scope of this 4000-word paper.

In considering the limitations of the study the authors could usefully consider why the findings from this study differ from the 2010 Infant Feeding Survey (IFS) findings. The IFS, which is a national study with a large sample including representation from areas of high IMD, found that 47% of breastfeeding women found it difficult to find a suitable place to breastfeed in public and 11% had been stopped or made to feel uncomfortable. This study of people posting reviews on FeedFinder states that 80% of venue reviews were positive and only 0.2% of the data set overall experienced a negative reaction from the public. The IFS data are presented in the introduction but this difference in findings could be addressed in the discussion.

Thank you for your observation and we agree that the discussion was lacking in comparison to the Infant Feeding Survey data. We have extended the discussion in multiple places to include this comparison.

Overall the paper is very interesting and makes a contribution to knowledge about this important public health issue. We value the time you have taken to review our manuscript and are very thankful for the thought provoking comments which we feel has improved how we report our research.

Reviewer: 3

This is an interesting paper, addressing an important issue for breastfeeding researchers and supporters. I have a few concerns but with revision this paper will make a valuable contribution to the literature on breastfeeding in public. It is novel, taking women's use of new technology to support breastfeeding as it's focus.

However, I found some aspects of the paper confusing - you describe it as a qualitative study and yet you discuss generalisability; not usually an issue in qualitative research. Despite being qualitative enquiry the focus of the reporting is on the numerical data and descriptive statistics. The quotes included are powerful but the overall emphasis is on the reporting of percentages and numbers, which feels strange in a qualitative piece (perhaps it is better labelled differently?). Some references to the theoretical underpinnings of the method of analysis might help make this clearer.

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| | <p>sample of mothers whereas demographic details of the FeedFinder sample are unknown. There may be characteristics of the FeedFinder sample which make public breastfeeding easier (e.g. maternal age, higher level of education, professional employment).</p> <p>2 In the first paragraph of the introduction (last sentence) the authors refer to the socio-economic groups where breastfeeding is less common. This should perhaps read public breastfeeding or breastfeeding outside the home is less common, as the references include studies of groups in which breastfeeding is common (e.g. Asian mothers) but breastfeeding in public can be problematic because of fear of added stigma.</p> <p>3 References 20 and 22 do not include all authors</p> <p>4 On pages 2 and 8 'discreet' is probably meant, not 'discrete'</p> |
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| REVIEWER | Dr Sally Dowling University of the West of England, Bristol, UK. |
| REVIEW RETURNED | 01-Jul-2016 |

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| GENERAL COMMENTS | <p>The changes that you have made following the first reviews have improved the paper. It's interesting and well-written; I think it will be useful to a range of people working with breastfeeding women.</p> <p>Throughout - 'discrete' needs to be changed to 'discreet' (and discretely).</p> |
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VERSION 2 – AUTHOR RESPONSE

Reviewer: 2

Reviewer Name

Louise Condon

Institution and Country

University of Swansea, Wales

Please state any competing interests or state 'None declared':

None declared

Please leave your comments for the authors below

The authors have diligently addressed reviewers' comments, and interesting sections on the implications of the findings for health professionals and IMD have been developed. I have four relatively minor points for consideration.

1 On page 8 there is now a relatively lengthy discussion of findings compared with the (contradictory) IFS survey findings. One point that is not discussed is that the IFS 2010 used a representative sample of mothers whereas demographic details of the FeedFinder sample are unknown. There may be characteristics of the FeedFinder sample which make public breastfeeding easier (e.g. maternal age, higher level of education, professional employment).

Thank you for your comment. We have amended and included this information (see track changes).

2 In the first paragraph of the introduction (last sentence) the authors refer to the socio-economic groups where breastfeeding is less common. This should perhaps read public breastfeeding or breastfeeding outside the home is less common, as the references include studies of groups in which breastfeeding is common (e.g. Asian mothers) but breastfeeding in public can be problematic because of fear of added stigma.

Thank you we have added 'public breastfeeding' in this section and added further references.

3 References 20 and 22 do not include all authors

Thank you, I have now updated reference list in Mendeley and inserted into manuscript.

4 On pages 2 and 8 'discreet' is probably meant, not 'discrete'

Thank you, we have amended accordingly.

Reviewer: 3

Reviewer Name

Dr Sally Dowling

Institution and Country

University of the West of England, Bristol, UK.

Please state any competing interests or state 'None declared':

None declared.

Please leave your comments for the authors below

The changes that you have made following the first reviews have improved the paper. It's interesting and well-written; I think it will be useful to a range of people working with breastfeeding women.

Throughout - 'discrete' needs to be changed to 'discreet' (and discretely).

Thank you, we have amended accordingly.

Reviewer: 1

Reviewer Name

Iain Williamson

Institution and Country

De Montfort University, Leicester, UK

Please state any competing interests or state 'None declared':

None declared

Please leave your comments for the authors below

I feel that the authors have considered the comments made by all reviewers in a careful, considered and thoughtful manner and the changes have enhanced the paper which makes an interesting and original contribution to the field. I am now fully confident that it is of publishable standard.

Thank you very much for your comments.