

Members of the public's comfort levels and emotional responses to breastfeeding in public vary with environment and privacy

FURNESS, Amy, MORRIS, Cecile <<http://orcid.org/0000-0001-6821-1232>>, HIRST, Craig <<http://orcid.org/0000-0001-9684-3659>> and SOMANGURTHI, Anuradha

Available from Sheffield Hallam University Research Archive (SHURA) at:

<http://shura.shu.ac.uk/31316/>

This document is the author deposited version. You are advised to consult the publisher's version if you wish to cite from it.

Published version

FURNESS, Amy, MORRIS, Cecile, HIRST, Craig and SOMANGURTHI, Anuradha (2022). Members of the public's comfort levels and emotional responses to breastfeeding in public vary with environment and privacy. *The Student Journal of Service Sector Management Research*, 1 (1), 57-69.

Copyright and re-use policy

See <http://shura.shu.ac.uk/information.html>

Purpose of The Student Journal of Service Sector Management (SSM) Research

The Student Journal of Service Sector Management (SSM) Research has been established to publish the research of Tourism, Hospitality, Events and Food and Nutrition (THEFN) students in the Department of SSM at Sheffield Hallam University (SHU). The aim of this journal is to provide an avenue for disseminating students' theoretical and industry-relevant research and to engage with students studying for an undergraduate and postgraduate degree in THEFN at SHU.

It is designed to:

- publish research to demonstrate the depth and breadth of the intellectual interest of our students.
- showcase students' research achievements in undertaking their undergraduate projects and postgraduate dissertations
- support students in gaining their first publication as publishing for the first time can seem daunting.

All publications have been double blind peer-reviewed and have been supported by the project/dissertation tutors. We hope that students are encouraged to publish in the future after this guided transition. Please contact Alisha.Ali@shu.ac.uk for further information.

Copyright Notice

Articles in The Student Journal of Service Sector Management Research are published under the [CC-BY-NC-ND](#) licence unless otherwise stated.

Authors choosing to publish their article in The Student Journal of Service Sector Management Research remain the copyright holders and grant third parties the right to use, reproduce, and share the article according to the policy under the [CC-BY-NC-ND](#) licence.

It is the responsibility of authors to ensure that permissions to reproduce any kind of third-party material are obtained from copyright holders prior to the article being submitted for publication.

MEMBERS OF THE PUBLIC'S COMFORT LEVELS AND EMOTIONAL RESPONSES TO BREASTFEEDING IN PUBLIC VARY WITH ENVIRONMENT AND PRIVACY

Amy M. Furness graduated with distinction from the MSc Nutrition with Public Health Management at Sheffield Hallam University in 2020-21. She is now working as a research assistant at Sheffield Hallam University. Cecile Morris and Craig Hirst are academic members of staff at Sheffield Hallam University and Anuradha Somangurthi is currently a PhD student.

Corresponding author: Cecile Morris – cecile.morris@shu.ac.uk – 0044 (0) 1142252759

INTRODUCTION AND LITERATURE REVIEW

Breastfeeding is rarely seen as a social norm in western community settings (Rollins et al., 2016), despite numerous physical and mental health benefits for both mother and baby (NHS, 2020). The breastfeeding rates in the United Kingdom (U.K.) are among the lowest in the world (Public Health England, 2016), with only 1% of women exclusively breastfeeding at six months. More recent UK figures from Public Health England (2020) show total aggregate breastfeeding rates in 2019/2020 were at 48%. In the UK, rates of breastfeeding are lowest in women under the age of 30, who are white, live-in areas of deprivation and who left education before the age of 18; only 1% of women exclusively breastfed for the recommended six months (Public Health England, 2017). Importantly, in 2010, the Equality Act was changed to make it unlawful to discriminate against breastfeeding mothers and it is an offence to stop them.

Many reasons are cited for early breastfeeding cessation including sore nipples and insufficient milk however, societal factors influence the early cessation of breastfeeding too, with mothers commonly citing lack of confidence in their ability to breastfeed in public, feelings of discomfort, unease, and anxiety (Boyer, 2018; Nguyen, Do & Van Pham, 2021). This issue may be further compounded by the well-publicized incidents of mothers asked to cover up to breastfeed in public (Bresnahan et al., 2020; Grant, 2016a; Morris et al., 2016). Even when mothers are not asked to cover up or cease breastfeeding; social disapproval can be expressed through disapproving looks (Bresnahan et al., 2020; Owens et al., 2018). These experiences discourage mothers from breastfeeding in public and may contribute to early breastfeeding cessation.

Therefore, a recurring theme, ubiquitous to research on attitudes towards breastfeeding in public, has been discretion and context (Hauck, Bradfield & Kuliukas, 2021). There is emerging evidence that the environment in which the mother is breastfeeding, and the level of privacy and discretion are critical to acceptance. Chan & Whitfield (2021) examined the role of the child's age as well as privacy (dichotomously: home vs. a public place) and found that in all cases, participants were more comfortable with breastfeeding at home. Magnusson et al. (2017) evaluated the male perception of public breastfeeding via an online survey. American male participants aged 20 to 44 were asked to view four images of women breastfeeding in different contexts (alone on a park bench; shopping with a friend; on a subway surrounded by others; and privately at home); scenes which included others were viewed more negatively and the authors concluded that the context of breastfeeding is less significant than perceived

privacy. These studies provide critical preliminary information indicating that environment and privacy levels may impact on acceptance of breastfeeding in public but these need to be confirmed in a systematic manner using the same mother-child dyad in a range of environments showcasing different levels of privacy.

Understanding better the impact of environment and privacy level is, however, not sufficient to increase members of the public's acceptance of breastfeeding in public. Social marketing can be a valuable tool to help present social norms that can facilitate changes in behavior (Yamin et al., 2019) and could position support for breastfeeding in public as the norm (Chan & Whitfield, 2021). Alternatively, the campaigns could aim to educate using factually accurate and culturally appropriate messages (Aryeetey et al., 2020) or they could aim to address underlying reasons for objecting to breastfeeding in public factually and systematically. In relation to this, disgust is often mentioned as breastmilk is compared to urine and even feces, as is embarrassment or 'not knowing where to look' (Morris et al., 2016). However, seeking to address the underlying reasons for opposing breastfeeding in public fails to acknowledge the strong emotional responses which breastfeeding in public can evoke when it is well established that emotions can be a powerful driver of intentions and behaviors (Berki-Kiss & Menrad, 2022). To date; there has not been any report of members of the public's emotional response to breastfeeding in public.

The objectives of this study were therefore twofold:

- Objective 1: To systematically test whether the environment in which mothers breastfeed has an impact on members of the public comfort level and whether this differs across segments of the population.
- Objective 2: To determine whether viewing a breastfeeding mother in different environments generates different emotional responses in members of the public and whether these differ across segments of the population.

METHODOLOGY

Sample

The target population was adult members of the public living in the United Kingdom. No incentive was offered to complete the survey, which was started by 791 respondents, 703 of whom completed it. The data were checked for multiple entries (same IP addresses); 22 IP addresses presented more than 1 entry (2 entries for 19 IP addresses and 3 entries for 3 IP addresses). When this was the case, the demographic questions were checked for multiple responses from the same participant; records from 8 IP addresses corresponded to respondents who had started the survey, not completed it, and started again later. Where that was the case, the incomplete records were removed as part of the 88 incomplete answers. Records from 10 IP addresses were completed by different household members (8 different gender and 2 different age group). Finally, records from 3 IP addresses appeared to originate from the same individual (same demographics); when this was the case, the earlier record was removed from the dataset as it was assumed that the respondent had sought to modify some of their answers. Additionally, 19 inconsistent records (high acceptance and negative emotions or low acceptance and positive emotions) were removed as it was assumed that these were the result of an incorrect use of the scales.

This resulted in a dataset of 681 valid and complete responses which were used for further analysis. Table 1 details the age and gender characteristics of the final sample. This study was approved by the University Research Ethics Committee on the 23rd of April 2021 under Ethic Review ID ER33104219.

Table 1: Characteristics of Participants (N=681)

| Gender | Age | | | | | | | Total n (%) |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|----------------|
| | 18-28 n (%) | 29-39 n (%) | 40-50 n (%) | 51-61 n (%) | 62-72 n (%) | 72-82 n (%) | 82+ n (%) | |
| Female | 148 (22) | 182 (27) | 147 (22) | 88 (14) | 46 (13) | 4 (1) | 1 (0) | 616 (91) |
| Male | 31 (5) | 11 (2) | 9 (1) | 7 (1) | 3 (0) | 0 (0) | 0 (0) | 61 (9) |
| Non-binary/prefer not to say | 3 (0) | 0 (0) | 1 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 4 (0) |
| Total | 182 (27) | 193 (28) | 157 (23) | 95 (14) | 49 (7) | 4 (1) | 1 (0) | 681 (100) |

The sample size was adequate for this this type of study, although it was skewed towards female and younger participants which impedes generalization to the UK population, however the numbers in each category were large enough to explore responses by:

- Comfort level with breastfeeding in public. The criteria applied to split the participants into more comfortable (n = 642) or less comfortable (n = 39) was responding ‘agree’ or ‘strongly agree’ on the item measuring comfort level with the breastfeeding scene for the least private environment.
- Age. The participants were split into 4 age groups: 18 to 28 (n = 182); 29 to 39 (n = 193); 40 to 61 (n = 252) and 62 and over (n = 54).
- Gender. The participants were split into 2 groups: female (n = 616) and male (n = 61). The 4 responses from participants who preferred not to say or identified as “other” were not considered when the data was split by gender.

Measurement

Table 2 presents the environments with associated levels of privacy showcased in the survey. To remove the confounding variables due to different mother/child dyads and ensure that only the environment impacted on level of comfort (aim 1) and emotions (aim 2), the dyad mother/child was identical in all photos and was photoshopped into different backgrounds.

Table 2: Picture descriptions and privacy levels

| Picture ID | Environment description | Privacy level |
|------------|--|--|
| P1 | The woman is sitting across a male friend in a café, at a table centrally positioned with other tables occupied by customers in the background | Least private, this is a public space, the woman is centrally located in a public space with other customers |

| | | |
|----|---|---|
| P2 | The woman is breastfeeding in a public park, facing the same male friend as in P1; members of the public can be seen sitting or standing some distance away in the background | The privacy level is slightly higher than for P1 as members of the public are further away, they are also not customers and share a public space |
| P3 | The breastfeeding woman is at home facing the same male friend as in P1 and P2; other friends / family members (2 males and 1 female) are sitting on a sofa in the background | The privacy level is higher than in P1 and P2 as the woman is sitting in a private space, but others are around her |
| P4 | The breastfeeding woman is on her own in front of public toilet cubicles | The privacy level is higher than in P1, P2 and P3 as she is on her own although others may walk in the bathroom – in the UK context, this is likely to be a female only space |
| P5 | The breastfeeding woman is on her own with her baby in a comfortable bedroom | This is the highest level of privacy, there is no-one else and no interruption is expected |

Only 2 questions were asked in relation to each photo. The first question under each photo aimed to answer aim 1 and read ‘I am entirely comfortable with the scene directly above’ with a 5-point Likert scale going from ‘strongly disagree’ to ‘strongly agree’. The second question aimed to answer aim 2 and read ‘How does this scene make you feel? (select all that apply)’ with possible answers: angry, aroused, caring, comfortable, disgusted, embarrassed, happy, neutral, pleased, offended, sad or uncomfortable. Participants also had the opportunity to check ‘other’. The 6 positive or neutral and 6 negative emotions were selected from existing reports (Boyer, 2018; Morris et al., 2016 and Woollard, 2019) and their presentation order was randomized.

Data collection

The online survey (Qualtrics, Provo, UT) was distributed through social media (Facebook and Instagram) throughout May and June 2021. The data were collected, processed, and stored in accordance with the detailed project data management plan which was reviewed and approved as part of the ethical review process.

Data analysis

Objective 1: The data acquired on Likert scale were not normally distributed, therefore, non-parametric tests were used to test for significant differences between the images: a Friedman test ($\alpha = 0.05$) was used. Where appropriate, it was followed post-hoc by a series of Wilcoxon signed rank tests with a Bonferroni correction ($\alpha = 0.005$).

Objective 2: For the categorical data relating to the emotions elicited by each picture, a Cochran Q test was applied ($\alpha = 0.05$). Where appropriate, it was followed post-hoc by a series of McNemar tests with a Bonferroni correction ($\alpha = 0.005$). Emotions cited by fewer

than 1% of the respondents were not removed from the final analysis. The final emotions included in the analysis were: angry, caring, comfortable, disgusted, embarrassed, happy, offended, pleased, sad and uncomfortable.

RESULTS

Objective 1: level of comfort associated with different environments (Figure 1)

Overall, across the entire sample (Figure 1A), there was a significant difference in comfort levels between the pictures ($p < 0.001$, $n = 681$, $df = 4$). The image of the woman breastfeeding in the washroom (P4) was the only picture generating a significantly lower level of comfort than the other 4 ($p < 0.001$ for all paired comparisons). There were no significant differences between any of the other 4 photos ($p > 0.005$).

The sample was, however, not representative of the general UK population, so it is important to explore comfort levels by subgroups: comfort level (Figure 1B), age (Figure 1C) and gender (Figure 1D).

Between 95 % and 97 % of respondents aged 18 to 61 fell in the more comfortable category but only 76 % of the respondents older than 62 were classified as more comfortable. Only 5 % of women fell into the less comfortable category whereas 12 % of men did. There were significant differences in comfort levels between pictures ($df = 4$, $p < 0.05$) for both participants more and less comfortable with breastfeeding in public although they differed considerably in their responses (Figure 1B). For participants more comfortable with breastfeeding in public, there were no differences in comfort level across P1, P2, P3 and P5 (all $p > 0.005$) whereas the picture of the woman breastfeeding in the washroom generated significantly lower levels of comfort than the other pictures (all $p < 0.001$). In contrast, levels of comfort increased with privacy levels (from P1 to P5) for participants in the less comfortable group; in particular, P1 generated significantly lower levels of comfort than all other pictures ($p < 0.002$ for all paired comparisons), whereas P4 did not significantly differ from P2 ($p = 0.326$) and P3 ($p = 0.551$) and P5 generated the highest comfort levels ($p < 0.001$ for all paired comparisons).

For all age groups, a similar pattern of comfort level was observed for all pictures (Figure 1C). The picture of the woman breastfeeding in the washroom (P4) generated significantly lower comfort levels than the other environments ($p < 0.001$ for all paired comparisons in each group). Within each group, there were no significant differences in comfort levels between any of the remaining 4 pictures ($p > 0.005$).

Although the comfort level patterns for men and women respondents were similar (Figure 1D); P4 generated significantly lower levels of comfort than all other pictures for women ($p < 0.001$ for all paired comparisons) whereas for men, there were no significant differences in comfort levels between P4 and P1 ($p = 0.214$), P4 and P2 ($p = 0.084$) and P4 and P3 ($p = 0.064$); P5 generated higher comfort levels than P4 ($p = 0.001$) but there were no significant differences between P5 and P1, P2 and P3 ($P > 0.005$ for all paired comparisons).

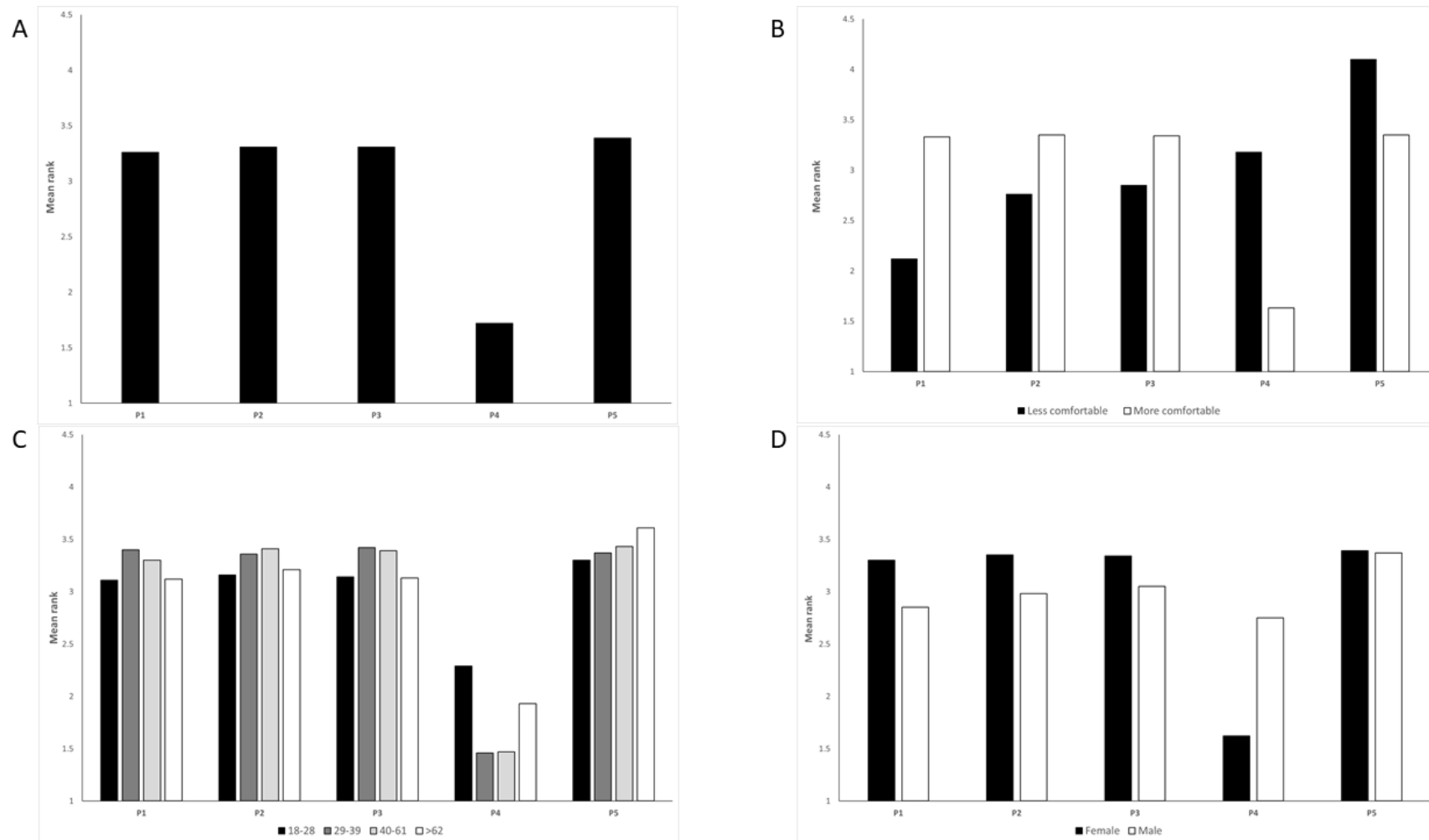


Figure 1: Comfort levels (mean rank) for the 5 photos of the same breastfeeding woman in different environments. 1A: overall sample; 1B: participants less and more comfortable with breastfeeding in public; 1C: participants by age group; 1D: participants by gender.

Objective 2: emotions generated in response to breastfeeding in different environments (Figure 2)

The emotional responses generated by the 5 different breastfeeding environments are presented in Figure 2A (overall sample), Figure 2B (less comfortable), Figure 2C (more comfortable), Figure 2D (18-28 year old), Figure 2E (19-39 year old), Figure 2F (40-61 year old), Figure 2G (62 year old and over), Figure 2H (women) and Figure 2I (men).

Across the whole sample, the emotions most cited were Happy and Comfortable for P1, P2, P3 and P5 but Sad and Uncomfortable for P4 (Figure 2A). It is interesting to note that except for P4, for which Uncomfortable was cited significantly more often than any other picture ($p < 0.001$ for all comparisons); there was a significant increase in the mentions of Comfortable (from 31 % of respondents to 45 %, $p < 0.001$) and decrease of Uncomfortable (from 4 % of respondents to 1 %, $p < 0.001$) with increasing levels of privacy in the pictures (P1 to P5) demonstrating that although our sample presented a high level of comfort with breastfeeding in public in general; the level of privacy had an impact on how comfortable participants were with breastfeeding.

The emotional response differed drastically across the 2 groups of respondents (less / more comfortable with breastfeeding in public; Figure 2B and 2C). More than 40 % of the less comfortable respondents declared being made Uncomfortable by the 3 pictures with the lowest levels of privacy, where the woman and child are surrounded by others (café, park and at home with others, no significant differences between all 3 pictures) but that level fell sharply and significantly once the woman was pictured alone with her baby (washroom: 10 % uncomfortable and bedroom settings: 8 % uncomfortable, $p = 1.00$ for difference in of frequency citation for Uncomfortable between P4 and P5). Neither Embarrassed nor Disgusted were commonly cited by that group. In contrast, the more comfortable participants overwhelmingly cited positive emotions (Happy, Caring and Pleased) for all the images apart from that of the woman breastfeeding in the washroom ($p < 0.001$ for all differences of frequency citations between P4 and the other 3 pictures for those 3 emotions). Of note, it is interesting that even participants more comfortable with breastfeeding in public cited Happy, Caring and Pleased less often for the woman breastfeeding in the café than at home (respectively, $p = 0.001$, $p < 0.001$ and $p < 0.001$).

The pattern of emotional response was similar across age groups (Figure 2D, 2E, 2F and 2G). The main differences stem from the response to the image of the woman breastfeeding in the washroom; the younger respondents especially, and older respondents to a lesser extent, seemed less Sad or Angry and more Comfortable with the scene than respondents aged 29 to 61.

Men cited nurturing or positive emotions (Pleased, Happy, Caring) less often than women whereas women cited Sad in response to the woman breastfeeding in a washroom more often than men (Figure 2H and 2I).

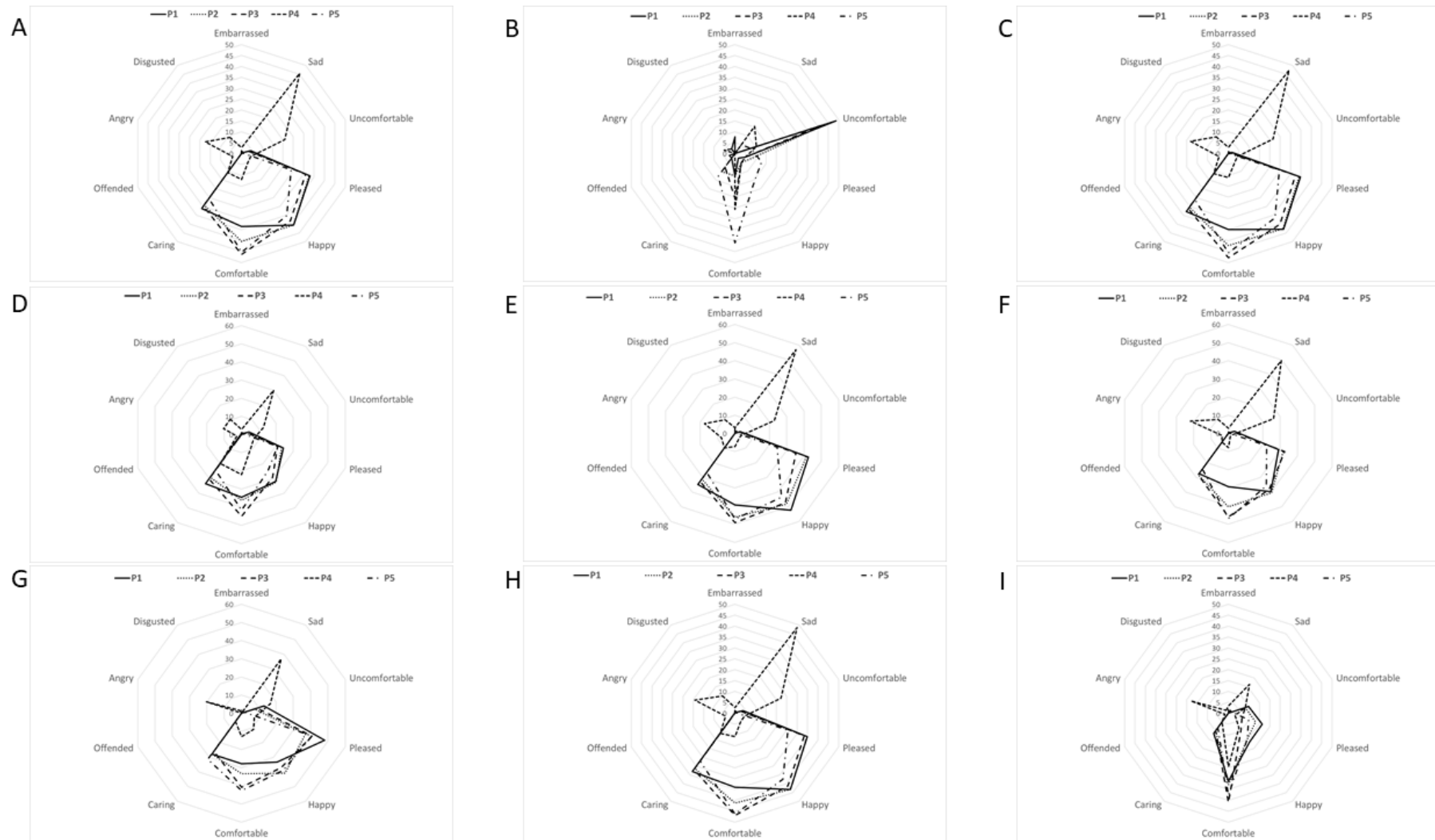


Figure 2: Emotional response to the 5 pictures of the same breastfeeding woman in different environments. 2A: overall sample; 2B: participants less comfortable with breastfeeding in public; 2C: participants more comfortable with breastfeeding in public; 2D: participants aged 18 to 28; 2E: participants aged 29 to 39; 2F: participants aged 40 to 61; 2G: participants aged 62 and over; 2H: women; 2I: men.

DISCUSSION

This study highlights that both comfort levels (objective 1) and emotions (objective 2) differ with the environment in which mothers breastfeed and these are both modulated by baseline levels of comfort with breastfeeding in public, age, and gender. The results confirm that older and male participants are less likely to be comfortable with breastfeeding in public as observed elsewhere (Roche, Owen & Fung, 2015; Sinclair et al., 2021). This gender and age effect may be driven by the perceptual distance between the participant's own situation and that of a breastfeeding woman which could be key to generating empathy and acceptance (Morris et al., 2020). Views on traditional gender roles are also likely to impact on acceptance: adult male opposition to breastfeeding in public has been linked to hostile attitudes toward women and feelings of sexual entitlement while adult female opposition may be rooted in self-objectification (Huang, Sibley & Osborne, 2021). Both embarrassment (not knowing where to look) and disgust (at breastmilk as a bodily fluid) have been put forward to explain opposition to breastfeeding in public (Morris et al., 2016); however, neither embarrassment nor disgust came across strongly here suggesting that these do not drive opposition to breastfeeding in public but rather, are used to rationalize it. Indeed, disgust may serve to exclude the body from public view (Mathews, 2019) and comparing breastmilk to urine and feces likens breastfeeding to indecent exposure (Bresnahan et al., 2020). This makes a case to develop social marketing campaigns showcasing women breastfeeding around others to increase exposure, which has been shown to have a small but significant effect on acceptance (Newell et al., 2020) and to normalize the activity.

This contrasts with campaigns which seek to factually address specific underlying causes for opposing breastfeeding in public, which have been criticized for seeking to justify the act of breastfeeding in public (Woollard, 2019). Among participants more comfortable with breastfeeding in public, breastfeeding in washrooms was seen negatively. For this group, this scenario resulted in low comfort levels and generated negative emotions (Sad and Angry). Whereas members of the public less comfortable with breastfeeding in public were more comfortable with this environment than with the café and did not greatly experience negative feelings towards this scenario. This suggests a lack of empathy from the segment of population which would be targeted by campaigns aiming to increase acceptance of breastfeeding in public is a limiting factor as we know that, in the broader context of healthcare, the use of empathy in advertising can be effective (Kemp et al., 2017). For instance, showing smokers the effects on people around them by means of a shock tactic has led to reduced smoking intent (Pechmann & Reibling, 2006). Shockvertising is a well-established tactic to generate strong emotions and empathy and it can form the basis of successful prosocial marketing campaigns; although the mechanisms through which they reach and influence younger or older audiences differ (Albouy & Décaudin, 2018). A scenario that highlights the socially exclusion and marginalization of breastfeeding mothers, may sensitize members of the public to the feelings or distress of mothers who may be subjected to these experiences (Pizarro, 2000) leading to wider acceptance. However, our results suggest that this approach is likely to gain more traction with members of the public already supportive of breastfeeding in public and may potentially polarize further entrenched feelings on both sides of the divide. This would need to be confirmed by exploring members of the public's reactions to existing social marketing campaigns in more depth. A potential starting point for this could be the series of adverts by "When Nature Call" that showcase women breastfeeding inside toilet cubicles that clearly have a shocking intention behind them (Jacobson, 2017).

Another important feature of these results is the fact that even participants more comfortable with breastfeeding in public displayed different levels of comfort and positive emotional responses in different environments. Comfort levels for the woman breastfeeding in a café was lower than for the other images even though other positive emotions (Happy, Caring and Pleased) were as high as the other two environments where the woman and child were surrounded by others but lower than for the woman breastfeeding alone at home. This suggests that, as reported by Magnusson et al. (2017), privacy is key and that there is room for increased acceptance of breastfeeding in cafés and restaurants even among the segments of population more comfortable with breastfeeding in public. Café and restaurant managers and workers have a role to play here as they are in the position to create a welcoming or hostile environment for breastfeeding women, however, there is a paucity of reports exploring their views and attitudes (Schmied, Burns & Sheehan, 2019). This warrants further research.

Limitations

The main limitation of this study is the lack of representativeness of the sample which is largely self-selected. There can be no generalization of the findings to the overall United Kingdom population. Considering the emotional responses to the woman breastfeeding in a washroom, it would have been useful to add ‘Shocked’ and possibly ‘Guilty’ as further possible emotions in response to the images.

CONCLUSIONS

The environment in which women breastfeed has a profound impact on comfort levels and emotions of those surrounding them. While the more supportive members of the public may experience different levels of comfort with the scene; their emotions remain positive. Members of the public less supportive of breastfeeding in public value privacy ahead of anything else and report being uncomfortable with women breastfeeding around others. The most divisive environment was a washroom, this made more supportive members of the public sad and angry while the less supportive members of the public felt comfortable with this scenario. There is therefore scope to increase comfort with breastfeeding in cafes and restaurants, possibly through exposure and norm based social marketing campaigns. Future research should examine how existing social marketing campaigns promoting breastfeeding and targeting members of the public are constructed and received but also explore the views of and potential role of café and restaurant managers and workers to create a supportive environment for breastfeeding women.

REFERENCES

- Albouy, J., & Décaudin, J.-M. (2018). Age differences in responsiveness to shocking prosocial campaigns. *Journal of Consumer Marketing*, 35(3), 328–339.
<https://doi.org/10.1108/JCM-02-2016-1713>
- Aryeetey, R., Lasisi, O., Hromi-Fiedler, A., Carroll, G., Pérez-Escamilla, R. & Harding, K. (2020). Design and testing of communication materials for a breastfeeding social media marketing campaign: Breastfeed4Ghana. *Digital Health*, 6, 1-12.
<https://doi.org/10.1177/2055207620909291>
- Berki-Kiss, D. & Menrad, K. (2022). The role emotions play in consumer intentions to make pro-social purchases in Germany – An augmented theory of planned behavior mode.

- Sustainable Production and Consumption*, 29, 79-89.
<https://doi.org/10.1016/j.spc.2021.09.026>
- Boyer, K. (2018). The emotional resonances of breastfeeding in public: The role of strangers in breastfeeding practice. *Emotion, Space and Society*, 26, 33-40.
<http://dx.doi.org/10.1016/j.emospa.2016.09.002>
- Bresnahan, M., Zhu, Y., Zhuang, J. & Yan X. (2020). « He wants a refund because I'm breastfeeding my baby”: A thematic analysis of maternal stigma for breastfeeding in public. *Stigma and Health*, 5(4), 394-403. <https://doi.org/10.1037/sah0000208>
- Chan, K. & Whitfield, K.C. (2021). “Too old” and “Too cold”: Discomfort towards photographs of breastfeeding beyond infancy and public breastfeeding in Nova Scotia, Canada. *Journal of Human Lactation*, <https://doi.org/10.1177/08903344211046191>
- Grant, A. (2016). “#discrimination”: The online response to a case of a breastfeeding mother being ejected from a UK retail premises. *Journal of Human Lactation*, 32(1), 141-151. <https://doi.org/10.1177/0890334415592403>
- Hauck, Y.L., Bradfield, Z. & Kuliukas, L. (2021). Women's experiences with breastfeeding in public: An integrative review. *Women and Birth*, 34, 2217-227.
<https://doi.org/10.1016/j.wombi.2020.04.008>
- Huang, Y., Sibley, C.G. & Osborne, D. (2021). Breast is best, but where? Hostile sexism underlies men's opposition to breastfeeding in public. *Journal of Social Issues*, 76(2), 219-238. <https://doi:10.1111/josi.12379>
- Kemp, E., Bui, M., Krishen, A., Homer, P.M. & LaTour, M.S. (2017). Understanding the power of hope and empathy in healthcare marketing, *Journal of Consumer Marketing*, 34(2), 85-95, <https://doi.org/10.1108/JCM-04-2016-1765>
- Jacobson, I. (2017, February 28). Campaign Shows How Some Moms Feel When They're Shamed For Publicly Breastfeeding. <https://www.thebump.com/a/campaign-shows-how-some-moms-feel-when-theyre-shamed-for-publicly-breastfeeding>
- Mathews, V. (2019). Reconfiguring the breastfeeding body in urban public spaces. *Social & Cultural Geography*, 20(9), 1266-1284.
<https://doi.org/10.1080/14649365.2018.1433867>
- Magnusson, B.M., Thackeray, C.R., Van Wagenen, S.A., Davis, S.F., Richards, R., & Merrill, R.M. (2017). Perceptions of public breastfeeding images and their association with breastfeeding knowledge and attitudes among an internet panel of men ages 21–44 in the United States. *Journal of Human Lactation*, 33(1), 157-164.
<https://doi.org/10.1177/0890334416682002>
- Morris, C., Schofield, P. & Hirst, C. (2020). Exploration of the Factors Influencing Attitudes to Breastfeeding in Public, *Journal of Human Lactation*, 36(4), 776-788.
<https://doi.org/10.1177/0890334419878119>
- Morris, C., Zaraté de la Fuente, G.A., Williams, C.E.T. & Hirst, C. (2016). UK views toward breastfeeding in public: An analysis of the public's response to the Claridge's

- incident. *Journal of Human Lactation*, 32(3), 472-480.
<https://doi.org/10.1177/0890334416648934>
- Newell, C., Sandoz, E. & Tyndall, I. (2020). A pilot study of the impact of brief exposure to images of breastfeeding mothers on attitudes toward mother's breastfeeding in public. *Health Communication*, <https://doi.org/10.1080/10410236.2020.1830511>
- Nguyen, N.T., Do, H.T. & Van Pham, N.T. (2021). Barriers to exclusive breastfeeding: A cross-sectional study among mothers in Ho Chi Minh City, Vietnam. *Belitung Nursing Journal*, 7(3), 171-178. <https://doi.org/10.33546/bnj.1382>
- Owens, N., Carter, S.K., Nordham, C.J. & Ford, J.A. (2018). Neutralizing the maternal breast: Accounts of public breastfeeding by African American mothers. *Journal of Family Issues*, 39(2), 430-450. <https://doi.org/10.1177/0192513X16650229>
- Pechmann, C. & Reibling, E.T. (2006). Antismoking Advertisements for Youths: An Independent Evaluation of Health, Counter-Industry, and Industry Approaches, *American Journal of Public Health*, 96, 906- 913.
<https://doi.org/10.2105/AJPH.2004.057273>
- Pizarro, D. (2000). Nothing more than feelings? the role of emotions in moral judgment. *Journal for the Theory of Social Behaviour*, 30(4), 355-375.
<https://doi.org/10.1111/1468-5914.00135>
- Public Health England. (2016, May 12). Health matters: Giving every child the best start in life. <https://www.gov.uk/government/publications/health-matters-giving-every-child-the-best-start-in-life/health-matters-giving-every-child-the-best-start-in-life>
- Public Health England. (2017, March). Giving every child the best start in life. <https://www.local.gov.uk/sites/default/files/documents/W3%20Giving%20every%20child%20the%20best%20start%20-%20Alison%20Burton%20and%20Lucy%20Pylypiw%2C%20PHE.pdf>
- Public Health England. (2020). Breastfeeding prevalence at 6 to 8 weeks after birth (experimental statistics). Annual data statistical commentary 2019 to 2020. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957253/OFF_SEN_Annual_Breastfeeding_Statistical_Commentary_2019_2020.pdf
- Roche, A. T., Owen, K. B., & Fung, T. T. (2015). Opinions Toward Breastfeeding in Public and Appropriate Duration. *ICAN: Infant, Child, & Adolescent Nutrition*, 7(1), 44–53.
<https://doi.org/10.1177/1941406414566675>
- Rollins, N.C., Bhandari, N., Hajeebhoy, N., Horton, S., Lutter, C.K., Martines, J.C., Piwoz, E.G., Richter, L.M., Victora, C.G. (2016). Why invest, and what it will take to improve breastfeeding practices? *Lancet*, 387(10017), 491-504.
[https://doi.org/10.1016/S0140-6736\(15\)01044-2](https://doi.org/10.1016/S0140-6736(15)01044-2)
- Schmied, V., Burns, E. & Sheehan, A. (2019). Place of sanctuary: an appreciative inquiry approach to discovering how communities support breastfeeding and parenting. *International Breastfeeding Journal*, 14(25), <https://doi.org/10.1186/s13006-019-0219-8>

Sinclair, M., Mc Cullough, J., Slater, P. F., & Black, R. (2021, February). Public attitudes to Breastfeeding in Northern Ireland. *Research Update*, 137.
<https://pure.ulster.ac.uk/ws/files/89985495/ARKupdate137.pdf>

Woollard, F. (2019). Requirements to justify breastfeeding in public: a philosophical analysis. *International Breastfeeding Journal*, 14(26), <https://doi.org/10.1186/s13006-019-0217-x>

Yamin, P., Fei, M., Lahlou, S., & Levy, S. (2019). Using social norms to change behavior and increase sustainability in the real world: A systematic review of the literature. *Sustainability*, 11, 5847, <https://doi.org/10.3390/su11205847>