Author’s response to reviews

Title: A full Brazilian or All Natural: Understanding the influences on Young Women’s decision to remove their pubic hair

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Dear Editor,

Thank you so much for the constructive feedback from the reviewers on our manuscript “A full Brazilian or All Natural: Understanding the influences on Young Women’s decision to remove their pubic hair” and the opportunity to submit a revised version in your journal. This revised manuscript has been developed and approved by all authors.

Our detailed responses to the reviewers comments are contained in the table below. We have also submitted a tracked changes version of the original manuscript to easily identify the revision made to the manuscript.

Also included after our responses to the viewers comments is the completed Checklist for Reporting Results of Internet E-Surveys (CHERRIES)

Myself, Dr Patricia Obst and my co-authors Professor Katherine White and Ms Ebony Matthews share the same affiliation stated above, the School of Psychology and Counselling at the Queensland University of Technology. We all hold joint responsibility for the production and submission of the revised manuscript and look forward to receiving your response to our revisions.

Warm Regards

Dr Patricia Obst
Editor and Reviewer Comments and Authors Response

1. Please ensure that your manuscript includes all items from the CHERRIES guidelines (https://www.equator-network.org/reporting-guidelines/improving-the-quality-of-web-surveys-the-checklist-for-reporting-results-of-internet-e-surveys-cherries/). Please include a completed CHERRIES checklist as an additional file with your revised manuscript.
   This is checklist is attached.

2. Please include the full questionnaire given to the participants as additional file to this manuscript. Please remember to include a reference to this in the main body of the manuscript.
   A reference to the main questionnaire as appendix A is now made on page 10 line 12 and the follow-up questionnaire as appendix B on page 12 line 14. Both questionnaires have been included as additional files.

3. Please follow the journal BMC Women's Health guidelines to format the manuscript and the Declarations section: https://bmcwomenshealth.biomedcentral.com/submission-guidelines/preparing-your-manuscript/research-article
   According to BMC formatting guidelines we have changed to double spaced formatting throughout and included line numbers restarting at the beginning of each page.

We have checked that all relevant information is included in the declaration.

I have seen that in this study most of the participants were Caucasians. Do literature data exist about pubic hair removal in non-Caucasian women?
   Thank you for this comment and yes in this convenience sample, participants were predominately Caucasian (this is now noted in the limitations in the discussion). There is some literature exploring the differences in hair removal practices among women of different ethnicities and cultures, which has been noted in the introduction in page 3 line 11 of the manuscript. DeMaria, A. L., & Berenson, A. B. (2013). Prevalence and correlates of pubic hair grooming among low-income Hispanic, Black, and White women. Body Image, 10(2), 226-231.

Title. "Au": please specify.
   Thank you for this feedback we have now changed “Au Natural” to “All Natural” for clarity page 1 line 2 and page 12 line 19.

Introduction: "Investigations...": it is necessary to underline that pubic hair removal is associated with frequent and important skin infections, in particular molluscum contagiosum (please read Veraldi S: Int J STD AIDS 2016, 27, 699).
   We thank the reviewer for raiding this oversight, Molluscum contagiosum infection has been now included as a common side effect of hair removal page 3 line 19. The reference list has been updated to include the Veraldi 2016 reference and in-text reference numbers updated throughout.
   The manuscript is pointlessly long.
   Thank you for this feedback, the manuscript has been reduced in length to be more concise and focused.

Abstract
   * There are a few typos in the abstract (spacing issue around the age of the people in the sample).
   * The abstract should potentially contain a bit more information about the specific research question.
and/or hypotheses.

Thank you for this feedback, the spacing issue addressed page 2 line 10, and other typographical issues addressed.
We have also included additional detail about research aims and hypotheses on page 2.

* Page 3, line 5, missing a comma after electrolysis Amended on page 3 line 4.
* Page 3, line 7, missing a word for clarity — perhaps, including from the more intimate parts (from would be the missing word)
  Amended on page 3 line 5.
* Page 3, line 15, change which to that
  Amended on page 3 line 10.
* Perhaps report some of the specific findings from past studies on the % of women who remove pubic hair
  Thank you for this suggestion, the proportion of sample removing pubic in cited studies has been added.
* Page 3, lines 43-45 - the first sentence of this paragraph is awkwardly worded — perhaps change which to that, or consider comma usage.
  Amended on page 3 line 23.
* Page 3, missing comma after "unsightly" ?
* I'm not sure which citation method you're using, but do you need a specific page number when using direct quotes? Amended on page 4 line 3.
We are using Vancouver citation method and the correct reference for a direct quote had been inserted.

* Page 4, line 28, to which instead of in which
  Amended on page 4 line 23.
* Page 4, line 30 - unclear sentence - re-word for clarity. Do you mean slowly instead of slowing?
  Amended on page 4 line 24.
* Page 4, line 31-32, missing comma after Hope
  Amended on page 4 line 25.
* In general, please look up proper comma usage around the word "which" and when to use which vs. that. Thank you for noting this issue it has been amended throughout.
* Page 4, line 48, missing a space after the citations and the next sentence.
  Amended on page 5 line 4.
* The sentence "the current research includes an expiration of the influence of feminism on young ……" - should be factored into the abstract early on so that the reader knows that this is what the paper is about.
  Thank you for this suggestion this sentence has been moved to earlier in the abstract on page.
* Page 4, last line, missing comma after date
  Amended on page 5 line 5.
* Page 5, line 4, should decision after young women's be plural (given that women is plural)?
  Amended on page 5 line 11.
* Theory of planned behaviour can be repeated - adding TPB just adds to the reader's cognitive load Amended throughout.
* Same for PBC - in general, avoid acronyms unless the acronym itself has interpretable meaning Amended throughout.
* Same for PWM (which you sometimes write as PMW)
  Amended throughout.
Current Research
* Perhaps use a bullet point / numbered list to make the hypotheses easier to read (and to avoid them reading like a long run-on sentence.
  Amended on page 7 line 20.

Method
* Page 7, line 11, missing spaces "$20,000 a year"
  Amended on page 8 line 17.

Procedure
* Change , to . After word "pages on line 28 of Page 7
  The word “pages” on page 9 line 3 is followed by a full stop rather than a comma.
* Are you able to tell how many participants came from the "Girls Advice" facebook page? This seems like a group that could somewhat lead to a skewed sample. Unfortunately, given the completely anonymous data collection survey instrument, there is no way to tell from which source participants were recruited. However there is no reason to believe that participants belonging to Girls Advice would differ in any systematic way to participants from other female specific groups.

Measures
* Last paragraph on Page 7, missing commas
  Amended on page 9 line 24 and page 10 line 2.
* Some of the characteristics listed for those who do not remove pubic hair seem contradictory (e.g., conservative and independent/alternative thinker?)
  Yes we agree that these traits are contradictory, but these are the results which emerged from the pilot study. This contradiction is highlighted in the Discussion.
* Please provide more information than "based on established scales" and then the citations - provide the names and psychometrics of the established scales.
  More information has been added as to the development of survey items.
* The wording in the indirect beliefs measure seems confusing - or at least how it is written about. Was it clear to the participants that they were being asked to report who else would have an opinion about the participant's pubic hair removal, or who else would have an opinion about their own pubic hair removal. As it is written in the paper, it's hard to distinguish between these two possible interpretations.
  Thank you for this feedback, the wording of the indirect beliefs section has been clarified, so it is clear the question referred to those who thought that participants should remove their own public hair
* Page 8, subjective norm - there is a space and then a . And then a missing space before Perceived
  Amended on page 11 line 12.
* I question the face validity of the sample item for subjective norms
  The items measuring subjective norms are based on the well validated and widely used survey construction protocol developed by Ajzen. Please see below link for details.

https://people.umass.edu/aizen/pdf/tpb.measurement.pdf

* Spacing issues on page 9, line 2  Amended on page 11 line 17
* Privately visible seems like odd phrasing. Why was this used instead of bikini line and Brazilian areas?
  This manuscript presents research that was part of a project that examined a range of women’s hair removal behaviours, which used the terms publically visible and privately visible hair removal. These terms were based on findings of the pilot study to distinguish the pubic area from other areas of the body.
* It seems that on line 17 of page 9, her would be a better word than their - technically, the sentence, as
structured, implies how the participant feels about a woman who is removing the participant's pubic hair (i.e., a professional waxer)

* What was the precise wording of the question presented to participants?

This has been amended to “her” for clarity. The actual questions (the full survey is provided as supplementary material) is worded “In general, how favourable is your impression of the type of woman who engages in the removal of hair that is privately visible”.

* For Behavioural intention and hair removal behaviour, were the two items from each merged into a single item, hence the reporting of an r value? Perhaps be more explicit in describing this.

Thanks for this feedback, that is correct, this has been described with more clarity on page 12.

**Results**

* Page 10, line 8, spacing issue

Amended on page 12 line 20.

* The use of "than" on page 10 in the second paragraph of descriptives is confusing. Do you mean then? This happens both times - than is a comparison, then is an order or list. "Then I went to the store and then I went to the movies."

Thanks you for noting this, the sentences were intended as comparisons, but have now been reworded to make this clearer.

* The use of acronyms makes it difficult to interpret the results without scrolling back to see what they mean.

As recommended, acronyms have been removed throughout.

* Page 12, missing comma before which on line 17

Amended on page 15 line 21.

* It seems the critical beliefs section might make more sense after the regression predicting attention and then move on to the follow up data about behaviour?

It is customary in TPB research to present critical belief analyses after the model testing aspects, so we kept this order. However, we are happy to reorder this section if the reviewer feels it would enhance the flow of the results.

* Are you able to do a mediation model given that you have the predictors of intention, and then intention is the strongest predictor of behaviour? Perhaps your other variables do predict behaviour, but are fully mediated through intention. Thanks you for this suggestion, unfortunately the reduced sample size of the follow up sample providing information on their hair removal behaviour restricted the testing of complex mediational models.

**Discussion**

* In the abstract and discussion section, when mentioning the association between feminist values and behaviour, I think it's important to keep noting the direction of the association.

Thanks for this feedback, the direction of association has been added to abstract on page 2 line 13.

Direction of association has also been added throughout the Discussion (e.g., page 16 line 15 and line 18).

* As a future research question, I wonder how beliefs about hair removal being painful would interact with desires to be attractive and comfortable? In other words, what is the threshold of motivation necessary, or what beliefs are crucial, to override the belief that hair removal is painful? How many women would like to remove but don't due to the pain, and how many want to so strongly that they accept the pain? How many simply don't experience pain or irritation, thereby making it irrelevant to their decision making process?

We thank the reviewer for this interesting point and have added it to the future research section on page 19.
* Would partner's beliefs vs. Normative beliefs have potentially been a better predictor to use? It would seem that partner's beliefs and/or desires would be a more proximal predictor of hair removal behaviour than general societal beliefs about hair removal norms.

    Thank you for this observation. Partners beliefs were captured in the indirect beliefs and in the subjective norms question incorporated in important others. However, the authors agree a more detailed look at partners beliefs would be an interesting avenue for future study and have noting this in the Discussion in the future research section on page 19.

* I think more justification is needed to explain why you think that the remover traits were considered normal while the non-remover traits were not considered normal. Are you arguing that "self-confidence" is abnormal in women?

    Thank you for this feedback, further exploration and clarification has been added to the Discussion explaining this finding on page 17.

* Given that your sample was 23% non-heterosexual, did you consider any group analyses to compare by sexual identity?

    Initial analyses were conducted to explore the effect of demographics on intention and sexual identity did not emerge a significant influence. This would be an interesting area for future research and this is noted in the Discussion.

Strengths and Limitations

* Page 15, line 30, missing spaces 13yearsorless

    Amended on page 20 line 5.

* You may also wish to add limitations noted above in your limitations section, such as the role of partners beliefs or how these behaviours may differ by sexual identity or relationship type

    Thank you these have been noted as limitations and suggestions for future research in the Discussion on page 19.

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Checklist for Reporting Results of Internet E-Surveys (CHERRIES)

<table>
<thead>
<tr>
<th>Item Category</th>
<th>Checklist Item</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>Describe survey design</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Done in method</td>
<td>Describe target population, sample frame. Is the sample a convenience sample? (In “open” surveys this is most likely.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IRB (Institutional Review Board) approval and informed consent process</td>
</tr>
<tr>
<td></td>
<td>Done in method</td>
<td>Mention whether the study has been approved by an IRB.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informed consent</td>
</tr>
<tr>
<td></td>
<td>Done in method</td>
<td>Describe the informed consent process. Where were the participants told the length of time of the survey, which data were stored and where and for how long, who the investigator was, and the purpose of the study?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Data protection</td>
</tr>
<tr>
<td></td>
<td>No identifiable data collected</td>
<td>If any personal information was collected or stored, describe what mechanisms were used to protect unauthorized access.</td>
</tr>
</tbody>
</table>
Development and pre-testing

Development and testing
Done in method  State how the survey was developed, including whether the usability and technical functionality of the electronic questionnaire had been tested before fielding the questionnaire.

Recruitment process and description of the sample having access to the questionnaire

Open survey versus closed survey
Done in method  An “open survey” is a survey open for each visitor of a site, while a closed survey is only open to a sample which the investigator knows (password-protected survey).

Contact mode
Done in method  Indicate whether or not the initial contact with the potential participants was made on the Internet. (Investigators may also send out questionnaires by mail and allow for Web-based data entry.)

Advertising the survey
Done in method  How/where was the survey announced or advertised? Some examples are offline media (newspapers), or online (mailing lists – If yes, which ones?) or banner ads (Where were these banner ads posted and what did they look like?). It is important to know the wording of the announcement as it will heavily influence who chooses to participate. Ideally the survey announcement should be published as an appendix.

Survey administration

Web/E-mail
Done in method  State the type of e-survey (eg, one posted on a Web site, or one sent out through e-mail). If it is an e-mail survey, were the responses entered manually into a database, or was there an automatic method for capturing responses?

Done in method  Describe the Web site (for mailing list/newsgroup) in which the survey was posted. What is the Web site about, who is visiting it, what are visitors normally looking for? Discuss to what degree the content of the Web site could pre-select the sample or influence the results. For example, a survey about vaccination on a anti-immunization Web site will have different results from a Web survey conducted on a government Web site

Mandatory/voluntary
Done in method  Was it a mandatory survey to be filled in by every visitor who wanted to enter the Web site, or was it a voluntary survey?

Done in method  Were any incentives offered (eg, monetary, prizes, or non-monetary incentives such as an offer to provide the survey results)?

Time/Date  In what timeframe were the data collected?

Randomization of items or questionnaires  To prevent biases items can be randomized or alternated.

Done in method  Use adaptive questioning (certain items, or only conditionally displayed based on responses to other items) to reduce number and complexity of the questions.

Number of Items
Done in method  What was the number of questionnaire items per page? The number of items is an important factor for the completion rate.

Number of screens (pages)  Over how many pages was the questionnaire distributed? The number of items is an important factor for the completion rate.

Completeness check  It is technically possible to do consistency or completeness checks before the questionnaire is submitted. Was this done, and if “yes”, how (usually JAVAScript)? An alternative is to check for completeness after the questionnaire has been submitted (and highlight mandatory items). If this has been done, it should be reported. All items should provide a non-response option such as “not applicable” or “rather not say”, and selection of one response option should be enforced.

Review step
State whether respondents were able to review and change their answers (eg, through a Back button or a Review step which displays a summary of the responses and asks the respondents if they are correct).

Response rates

Unique site visitor If you provide view rates or participation rates, you need to define how you determined a unique visitor. There are different techniques available, based on IP addresses or cookies or both.

View rate (Ratio of unique survey visitors/unique site visitors) Requires counting unique visitors to the first page of the survey, divided by the number of unique site visitors (not page views!). It is not unusual to have view rates of less than 0.1 % if the survey is voluntary.

Participation rate (Ratio of unique visitors who agreed to participate/unique first survey page visitors) Count the unique number of people who filled in the first survey page (or agreed to participate, for example by checking a checkbox), divided by visitors who visit the first page of the survey (or the informed consents page, if present). This can also be called “recruitment” rate.

Completion rate (Ratio of users who finished the survey/users who agreed to participate)

The number of people submitting the last questionnaire page, divided by the number of people who agreed to participate (or submitted the first survey page). This is only relevant if there is a separate “informed consent” page or if the survey goes over several pages. This is a measure for attrition. Note that “completion” can involve leaving questionnaire items blank. This is not a measure for how completely questionnaires were filled in. (If you need a measure for this, use the word “completeness rate”).

Preventing multiple entries from the same individual

Cookies used

NO Indicate whether cookies were used to assign a unique user identifier to each client computer. If so, mention the page on which the cookie was set and read, and how long the cookie was valid. Were duplicate entries avoided by preventing users access to the survey twice; or were duplicate database entries having the same user ID eliminated before analysis? In the latter case, which entries were kept for analysis (eg, the first entry or the most recent)?

IP check

NO

Indicate whether the IP address of the client computer was used to identify potential duplicate entries from the same user. If so, mention the period of time for which no two entries from the same IP address were allowed (eg, 24 hours). Were duplicate entries avoided by preventing users with the same IP address access to the survey twice; or were duplicate database entries having the same IP address within a given period of time eliminated before analysis? If the latter, which entries were kept for analysis (eg, the first entry or the most recent)?

Log file analysis

NO Indicate whether other techniques to analyze the log file for identification of multiple entries were used. If so, please describe.

Registration

NO In “closed” (non-open) surveys, users need to login first and it is easier to prevent duplicate entries from the same user. Describe how this was done. For example, was the survey never displayed a
second time once the user had filled it in, or was the username stored together with the survey results and later eliminated? If the latter, which entries were kept for analysis (eg, the first entry or the most recent)?

Analysis

Handling of incomplete questionnaires
Done in method
 Were only completed questionnaires analyzed? Were questionnaires which terminated early (where, for example, users did not go through all questionnaire pages) also analyzed?

Questionnaires submitted with an atypical timestamp
Survey Opened and closed on specific dates
Some investigators may measure the time people needed to fill in a questionnaire and exclude questionnaires that were submitted too soon. Specify the timeframe that was used as a cut-off point, and describe how this point was determined.

Statistical correction
Indicate whether any methods such as weighting of items or propensity scores have been used to adjust for the non-representative sample; if so, please describe the methods.