

Statistical Techniques Used in Public Perception of Ideal Breast Shape

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Editorial Decision date: May 12, 2022; online publish-ahead-of-print May 18, 2022.

Aesthetic Surgery Journal Open Forum
2022, 1–1
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<https://doi.org/10.1093/asjof/ojac050>
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In response to the Letter to the Editor received regarding “Public Perception of Ideal Breast Shape,” we appreciate the letter and interest.^{1,2} In particular, the letter expressed that the survey participants being 60% male was a detriment to the results and possibly not aligned with the average female’s preferences. This is a valid concern. The authors assumed this would be an issue in earlier work. A few different experiments were conducted which in part attempted to address this.

The study that followed this publication studied the crowd’s perception of the aesthetics of breast characteristics using actual patient photographs.³ Demographic questions were additionally asked during this study. Figure 6 of this study actually examines the preferences of the crowdworkers in areas that were seen to show significant differences. The 6 different demographic groupings shown in this figure: socioeconomic status, ethnicity, number of children, marital status, age group, and education all showed at least noticeable differences in preference. Surprisingly, however, there were no statistically significant differences in preferences between males and females. For this reason, they were not included in the plots made, as mentioned in the text. These data were revisited due to this letter for double-checking, and indeed the aesthetic ratings, when stratified by gender, showed a statistically insignificant difference, less than a 4% difference between before and after preferential questions.

An additional area of concern was that the raters being 40% female was potentially not enough to provide an accurate assessment. The authors conducted a study before this which analyzed the ability of crowds to provide reliable and repeatable responses to aesthetic survey assessments.⁴ During this study, statistical tests were conducted to find the minimum number of assessments necessary to

provide an accurate measurement that would be repeatable and reliable. In this study, it was found that just 40 raters are sufficient for providing accurate assessments in this topic area.

Disclosures

Dr Kelly is a co-founder and employee of Love My Delta, Inc. (Philadelphia, PA).

Funding

This study was funded fully by Love My Delta, Inc (Philadelphia, PA).

REFERENCES

1. Valente DS, Zanella RK. Thoughts on public perception of ideal breast shape. *Aesthet Surg J Open Forum*. 2022;4:ojac042. doi: [10.1093/asjof/ojac042](https://doi.org/10.1093/asjof/ojac042)
2. Kelly J, Comstock B, Shauly O, Smartt J, Gould D. Public perception of ideal breast shape. *Aesthet Surg J Open Forum*. 2022;4:1-8. doi: [10.1093/asjof/ojab049](https://doi.org/10.1093/asjof/ojab049)
3. Kelly J, Comstock B, Shauly O, Smartt J, Gould D. Validation of ideal breast characteristics with breast augmentation patients. *Aesthet Surg J Open Forum*. 2022;4:1-11. doi: [10.1093/asjof/ojac010](https://doi.org/10.1093/asjof/ojac010)
4. Kelly JD, Comstock B, Kowalewski TM, Smartt JM. Crowd-sourced reliability of an assessment of lower facial aging using a validated visual scale. *Plast Reconstr Surg Glob Open*. 2021;9(1):e3315. doi: [10.1097/GOX.0000000000003315](https://doi.org/10.1097/GOX.0000000000003315)

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