



Validation of Ideal Breast Characteristics with Breast Augmentation Patients

Jason D. Kelly, PhD¹, Bryan Comstock, MS², Orr Shauly, MD³, Troy Marxen, BS³, James M. Smartt, Jr., MD⁴, Daniel J. Gould, MD PhD⁵.

¹Love My Delta Inc., Boston, MA, USA, ²Love My Delta Inc., Philadelphia, PA, USA, ³Emory University School of Medicine, Atlanta, GA, USA, ⁴Private Practice, Philadelphia, PA, USA, ⁵Keck School of Medicine, Los Angeles, CA, USA.

Purpose:

To validate crowdsourced perceptions of breasts with their alignment to the aesthetics of breast augmentation patients.

Methods:

A prospective cross-sectional study was performed using participants enrolled through the Amazon Mechanical Turk crowdsourcing platform (Amazon Web Services, Amazon, Seattle, WA) to obtain participant opinions of how closely patient breasts aligned with previously obtained results of 4 ideal breast characteristics. Outcomes were reported based on the correlation between breast attractiveness and alignment to ideal breast characteristics, both before and after breast implant procedures.

Results:

2306 responses from 737 participants reported patient photograph alignment with ideal breast projection proportion (1.0) as having the highest correlation to opinions of heightened aesthetic beauty ($R = 0.98$, $P < 0.001$), and ideal nipple direction (front) as having the lowest correlation to aesthetic beauty ($R = 0.90$, $P < 0.001$). Younger age groups (18-24) and participants with a high school diploma or less rated patients as less attractive, while married and wealthy individuals reported higher attraction levels.



Figure 1. (Left) Example of lateral before and after patient breast implant photographs of (top) a 24-year-old female and (bottom) a 37-year-old female. (Right) Example of frontal before and after patient breast implant photographs of (top) a 24-year-old female and (bottom) a 37-year-old female. After photographs were taken 3 to 6 months post procedure.

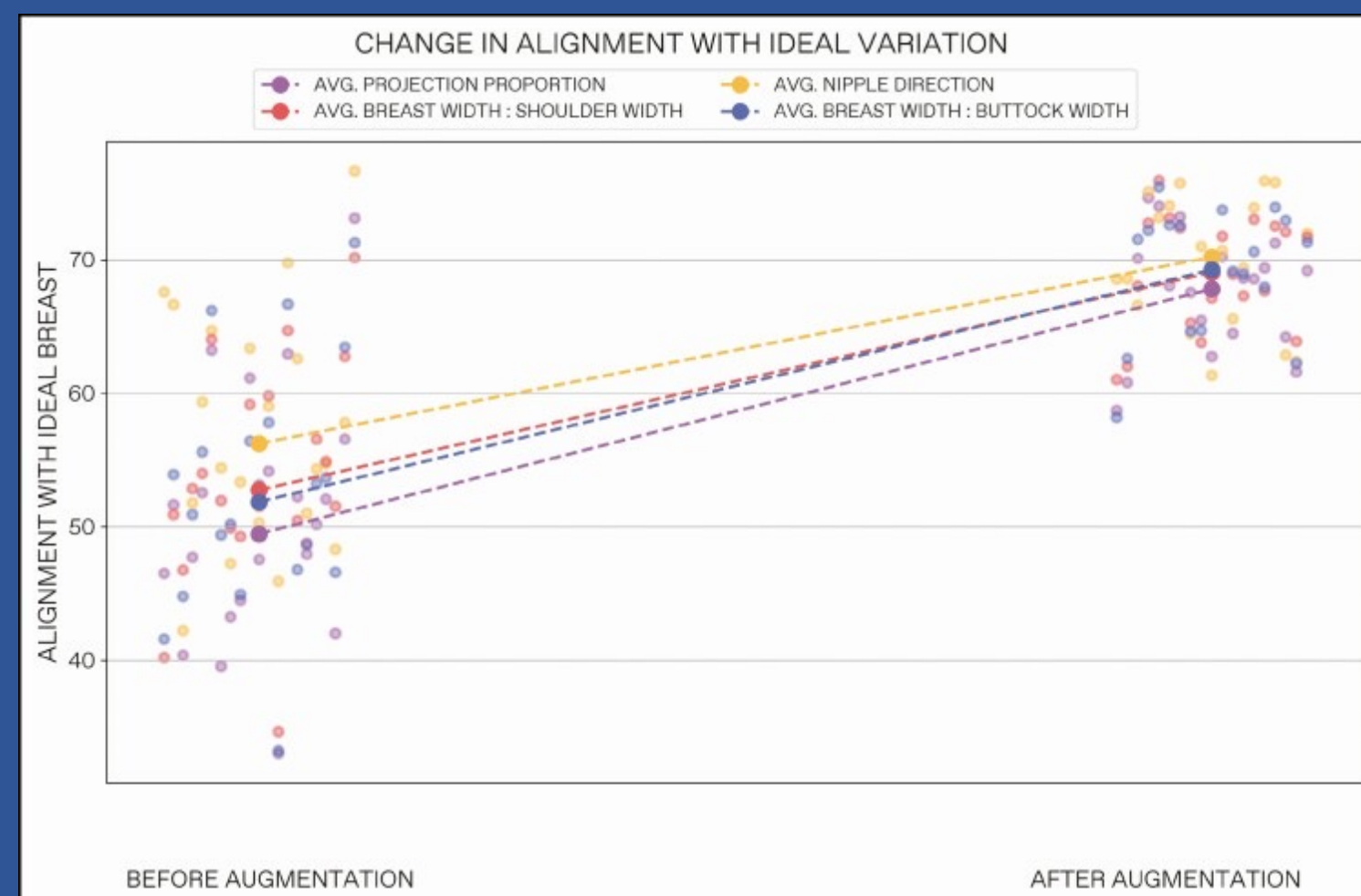


Figure 2. Average change in breast alignment before and after breast augmentation for each characteristic, with nipple direction changing 13.94 points and projection proportion changing 18.32 points.

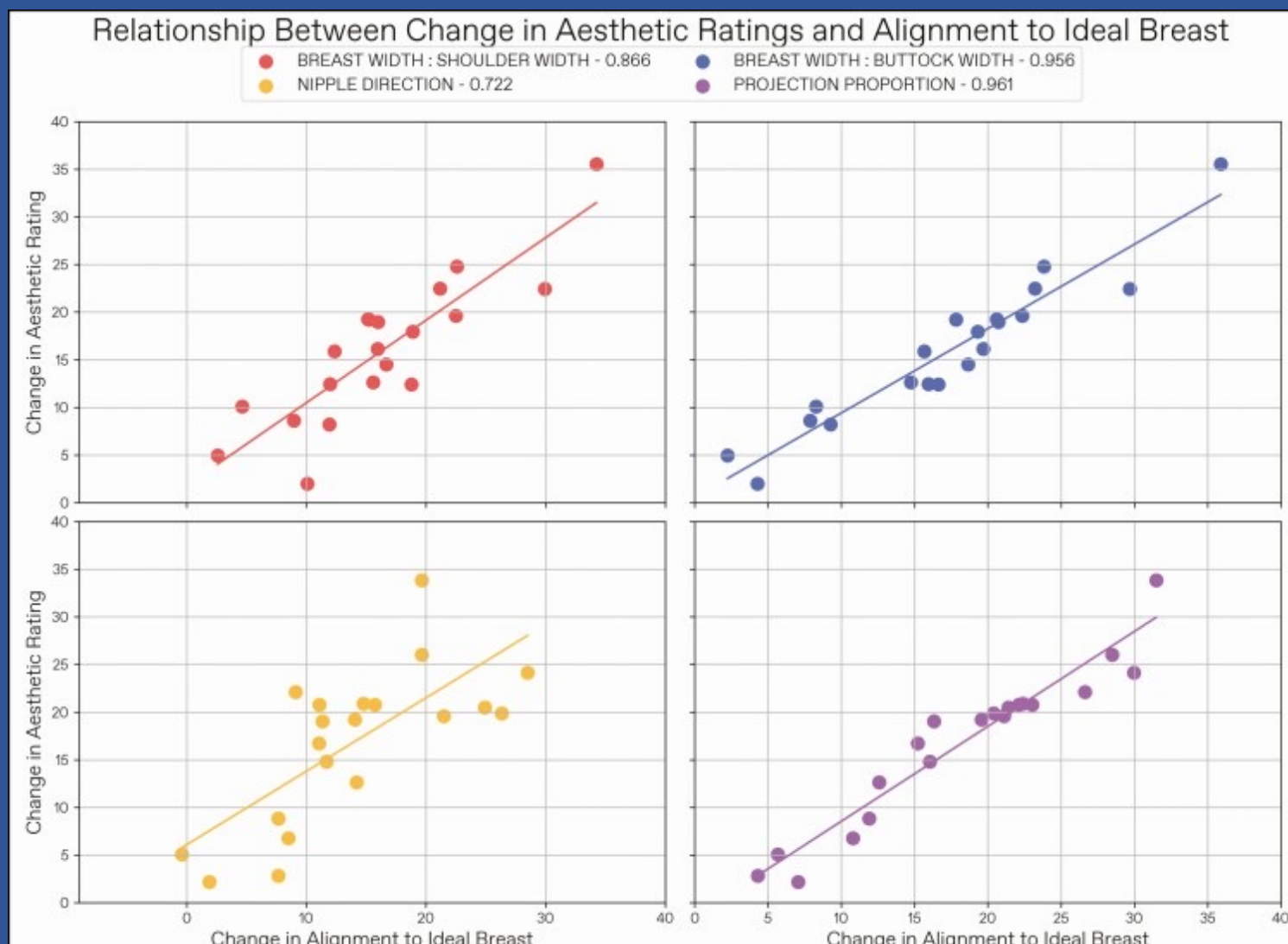


Figure 4. The change between each patient's breast's alignment with the ideal variation of each characteristic and the change in the patient's perceived aesthetic beauty.

Discussion:

Understanding public perception of ideal breast characteristics is important for breast augmentation procedures and crowdsourcing can be used to achieve this.

Patient photographs before and after breast implant procedures show that projection proportion is the most important factor for aesthetic beauty, with demographic differences and changing views based on number of children raised also playing a role.

The ranked order of aesthetic importance for breast characteristics is projection proportion, width relative to buttock width, and width relative to shoulder width, with nipple direction being less important.

Conclusion:

Crowdsourcing and visual scale assessment can identify public perception of ideal breast characteristics, with projection proportion and lateral breast width being most important. Data from crowdsourcing studies can inform aesthetic industry of trends and preferences, identify up-and-coming procedures and changes in public perception, allowing direct feedback from patients.

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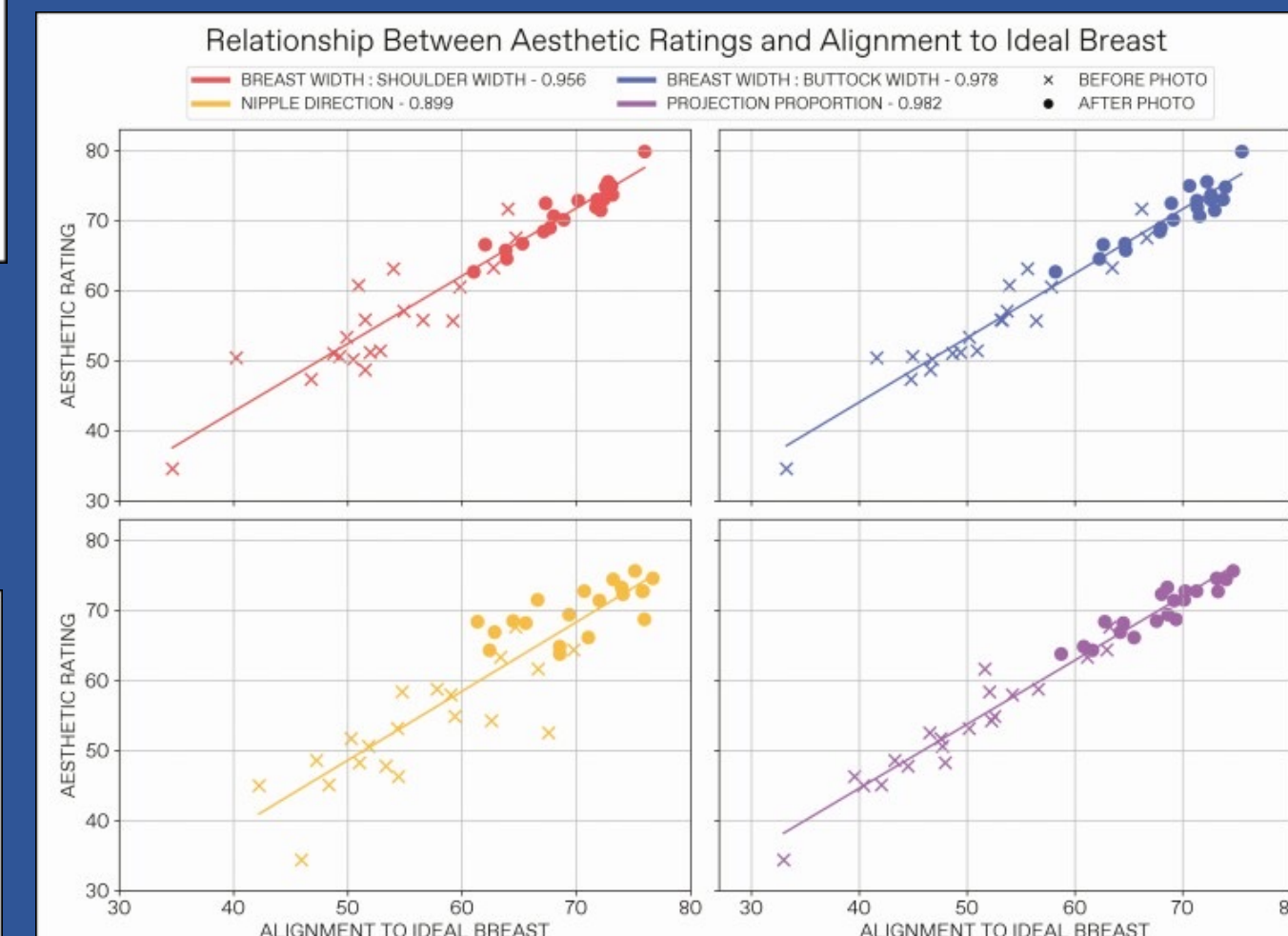


Figure 3. The relationship between each photograph's perceived alignment to the ideal variation of each characteristic and the perceived aesthetic beauty of the photograph being viewed.