Survey Sampling Methods in Aesthetic Surgery:
A Critical Appraisal of Modern Consumer Representativeness

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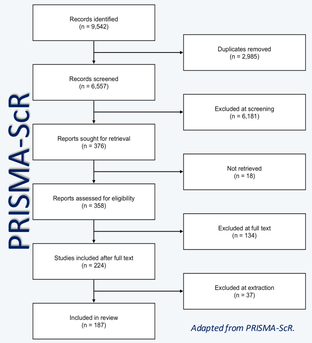
OBJECTIVES [M2, M4]

- Assess aesthetic-consumer survey respondent characteristics 2015-2025
- Describe relative compatibility of actual consumer survey respondents to available external references.

SCOPING REVIEW METHODS (QR for full methods) [M1, D14]

- English-language adult-consumer surveys, 2015-2025.
- Topic: Clinician-delivered aesthetic procedures
- Dual title/abstract screening; reciprocal extraction with single-reviewer verification.
- Reviewer consensus pending – findings preliminary
- Registered, embargoed.

SELECTION & REPORTING [D1, D14; M1]



Adapted from PRISMA-ScR.

- Preliminary, descriptive findings
- independent duplicate abstract and full text screening by two reviewers
- Reciprocal extraction with single-reviewer verification; consensus pending.
- Nested subgroups and non-exclusive procedures.
- Senior authors reviewed abridged draft only.

See QR Supplemental Materials for additional details.

RESULTS & SYNTHESIS [D1, D14]

- Single-timepoint cross-sectional studies: 96/187 (51.3%).
- Conceptual conflation greatest with the gender demographic category.
- ~ 70/187 (37.4%) documented nonprobability sampling or voluntary recruitment / crowdsourcing; 28/187 (15.0%)
- Procedure interest/intention:
  - General public 14/92 (15.2%);
  - select consumers 9/97 (9.3%)
- Rhinoplasty brought up in 43/187 studies;
- Botulinum toxin (Botox) in 31/187 studies [57].

I. Demographic Reporting Completeness [D1, D5, D14]

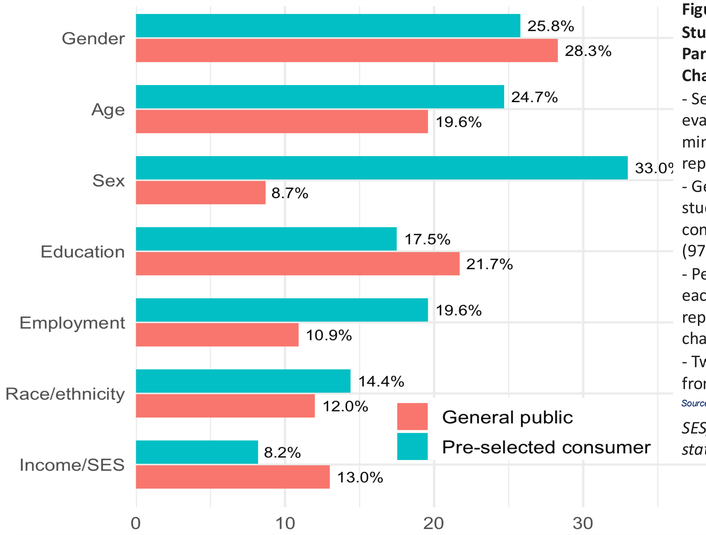


Figure 1 (LEFT): Studies Reporting Participant Characteristics

- Sex and gender evaluated separately, a minority of studies reported both accurately
- General public (92 studies) · Pre-selected consumer populations (97 studies)
- Percentage of studies in each consumer type that reported each characteristic.
- Two studies recruited from both.

Sources: See supplemental material (QR)

SES, socioeconomic status.

II. Female & Male Survey Respondents [D1, D6, D14]

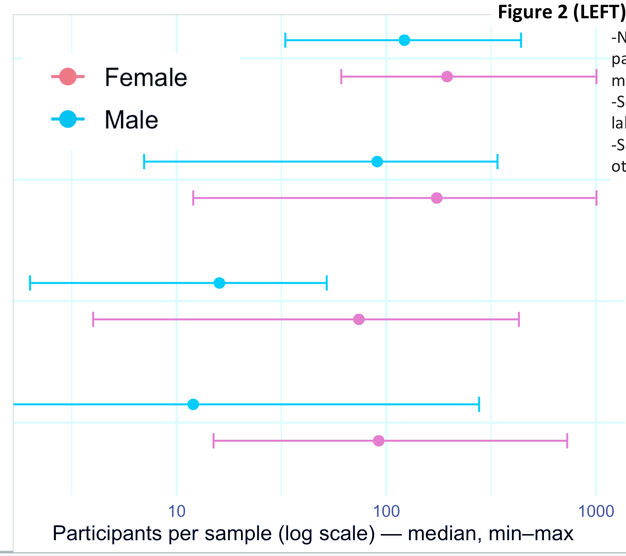


Figure 2 (LEFT): Per Participant Count

-Number of female and male participants per sample, with median and range.
-Sex and gender are as authors labeled
-Samples that overlapped with other samples were removed.

Figure 4 (RIGHT): Consumer Representation in Head & Neck Aesthetic Procedures

TOP: percentage of female and male respondents in head-and-neck survey samples, by recruitment group.

Bottom: percentage of head-and-neck procedures in women and men reported by ASPS, ISAPS and the Aesthetic Society. Survey periods use collection dates; society periods use procedure years. Each dot is one survey sample or one society report year.

III. Mental Health Effects on Procedure Volume, by Era (2015-2025) [S6]

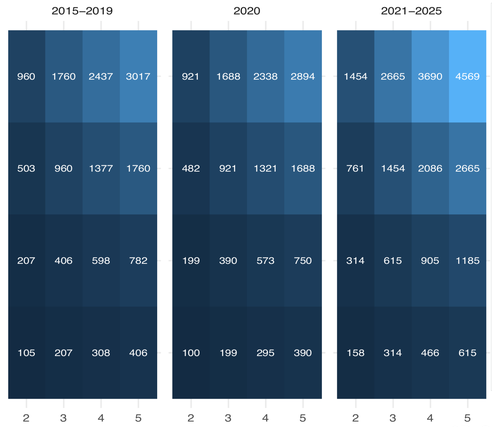


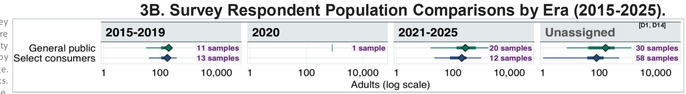
Figure 3A: Effect of Mental Health (Including Body Dysmorphic Disorder/BDD) Populations Obtaining >1 Procedure Per Person, Per Year on Procedure Volume. [S6]

- x-axis: per person procedure contribution to aesthetic procedure volume.
- y-axis: Procedures per person expressed in percent
- Each cell = Per-person procedure contribution per year expressed in thousands (e.g. 105 = 105,000)
- Assumptions: mental health consumers = 1%, 2%, 5% or 10%; 2-5 procedures each if typical/generally healthy consumers obtain only 1 procedure per person.
- ISAPS worldwide surgical volume for three eras between 2015-2025 [S6].

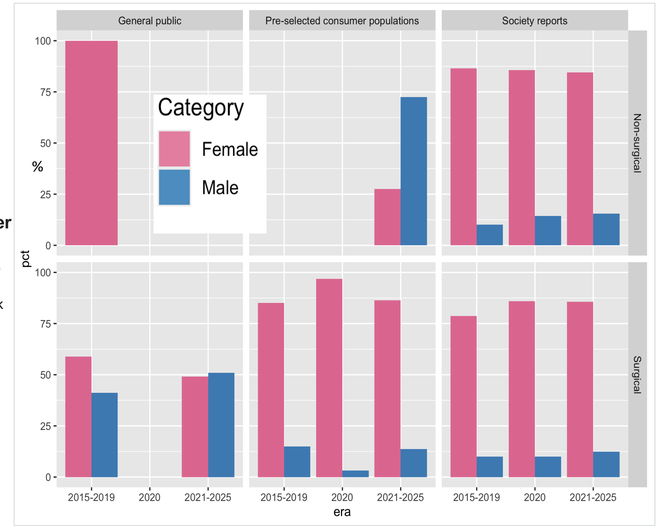
Based on average yearly ISAPS worldwide surgical totals: 2015–2019, 10.6 million; 2020, 10.1 million; 2021–2025, 16.0 million.

3B.(RIGHT) Adult respondents in each survey sample, grouped by survey collection dates (57/121 studies had collection dates). B. Annual procedure totals from American Society of Plastic Surgeons (ASPS), International Society of Aesthetic Plastic Surgery (ISAPS) and the Aesthetic Society, grouped by procedure year. Diamond = median; bar = mid-50%; line = range. Samples of 5 or less are shown as single marks. Log scale. One patient may account for >1 procedure.

3B. Survey Respondent Population Comparisons by Era (2015-2025). [D1, D14]



IV. Head & Neck Aesthetic Procedures: Female & Male [D1, S6]



LIMITATIONS [D14]

- Scope-limited extraction of head-and-neck procedure data
- Direct comparisons and the sensitivity model described in Fig3A may be a stretch
- Reviewers did not share similar mental schemata
- Heterogenous/ highly variable reporting resulted in periodic alterations to the extraction form to adapt to the info presented

CONCLUSION [D1, D14]

In our analysis, we recognize that surveys may introduce new layers of subjectivity at every stage of the process. And, this is a context where individuals' unique experiences and views of the world may not work in our favor.

Standardization of a series of actions may be preferred over standardization of concepts or context. Actions can directly shape individual perspectives and bring subjectivity to level ground.

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REFERENCES (See QR)
[M1] Tricco et al. PRISMA-ScR. Ann Intern Med. 2018;169:467-473. [M2] Sharma et al. CROSS. J Gen Intern Med. 2021;36:3179-3187.
[M3] AAPOR. Standard Definitions. 10th ed. 2023. [M4] AAPOR. Transparency Initiative.
ASPS: American Society of Plastic Surgeons. ISAPS: International Society of Aesthetic Plastic Surgery.

SUPPLEMENTAL MATERIALS *(via QR)*

- Appendix A: Custom Extraction Template
- Appendix B: Data Dictionary
- Appendix C: Complete Methods
- Appendix D: Complete Reference Lists
- Psychiatric Sensitivity Grid
- Head and Neck Comparator Figures
- Head and Neck Comparator Tables
- Supplemental Figures
- Template Tables: Final Poster Analysis Plan