

Facial Surgery Impact on Quality-of-Life: The Perspectives of Asian and Caucasian Patients

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Background

Inappropriate scarring can result in significant morbidity that negatively impacts physical, functional, and psychosocial outcomes.¹ Within plastic surgery, procedures of the face require especially careful treatment and management of subsequent scar formation. There are important differences between cutaneous scarring among different ethnic groups.² Asian populations whose skin color ranges from type III to type V Fitzpatrick's classification have a tendency to have hyperpigmented and overactive scarring, partly due to Asian skin having a thicker dermis, greater collagen density, and a larger number of sebaceous glands.^{3,4} In addition, Asian patients may experience more significant fibroblast proliferation and collagen deposition than Caucasian patients after surgical treatment.⁵

Thus, evaluating surgical scars postoperatively among Asian populations can help both surgeons and patients to achieve satisfactory outcomes and plan scar management accordingly. There remains a need to study the impact of facial scars on quality-of-life comparing Caucasian and Asian populations has not previously been reported. Patient-reported outcome measurements are used to understand the negative impact of scarring from the patient's perspective.

Objective

The objective of this study is to evaluate Caucasian and Eastern Asian patients' perception of the impact of their facial scars on symptoms, appearance, psychosocial health, career, and sexual well-being using the SCAR-Q and the CS scales.

Methods

A total of 149 facial surgery patients from five providers completed the SCAR-Q and Career/Sexual Well-Being (CS) scales via phone or email. The SCAR-Q is a validated 29-question scale that assesses appearances, symptoms, and psychosocial impact of scars.⁶ A previously established framework of scar themes generated from patient interview discussions informed the creation of the 4-question CS scale.⁷ Higher scores on both scales indicates a better outcome.

Table 1: Breakdown of patients by ethnicity and procedure type

Procedure	Asian	Caucasian	Total
Blepharoplasty	49	7	56
Chin Augmentation	-	6	6
Craniotomy	-	6	6
Eyelid Revision	-	19	19
Face Lift	-	18	18
Moh's Surgery	-	7	7
Rhinoplasty	17	4	21
Other	9	7	16
Total	75	74	149

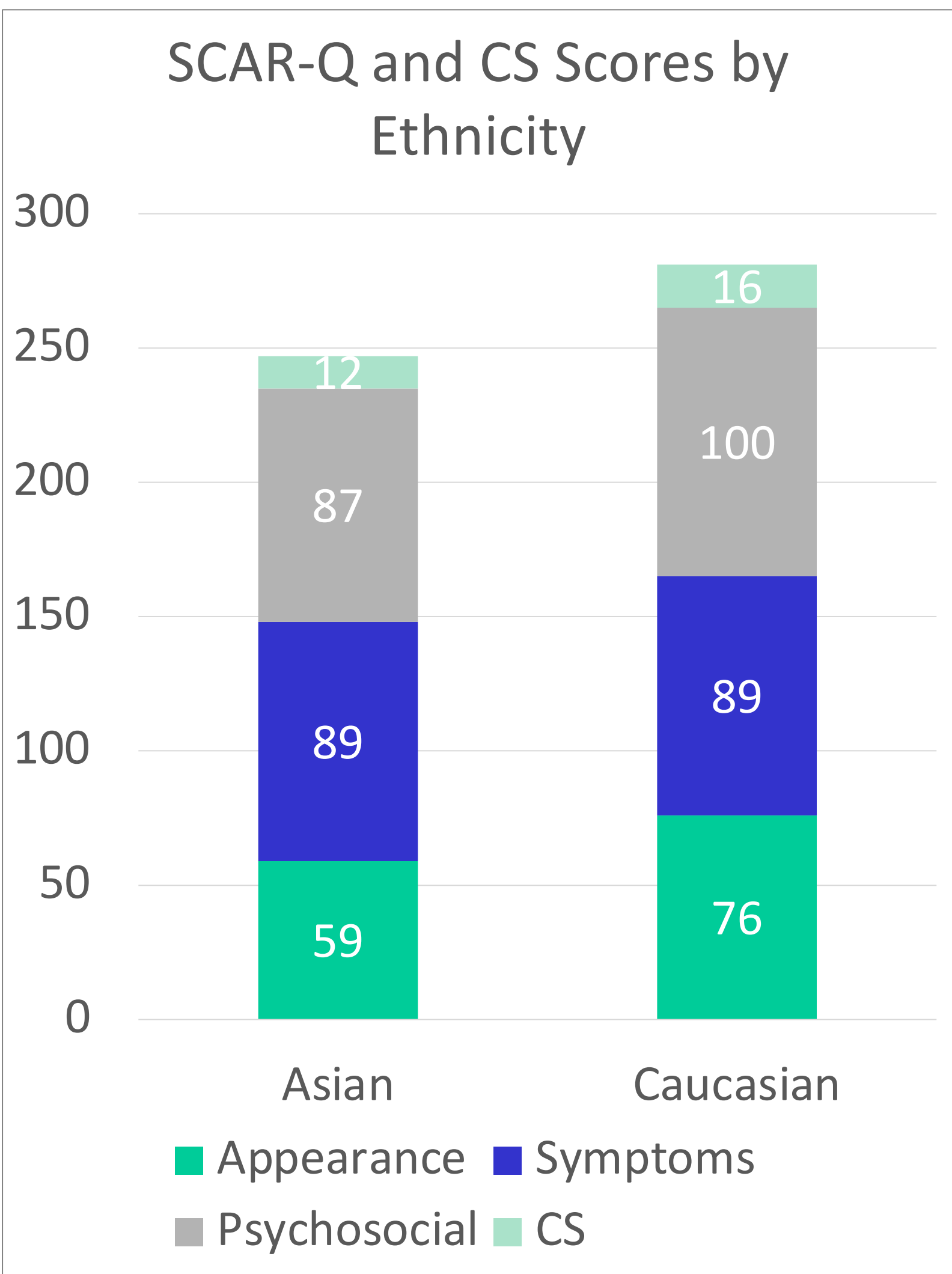


Figure 1: Breakdown of SCAR-Q and CS median scores by ethnicity

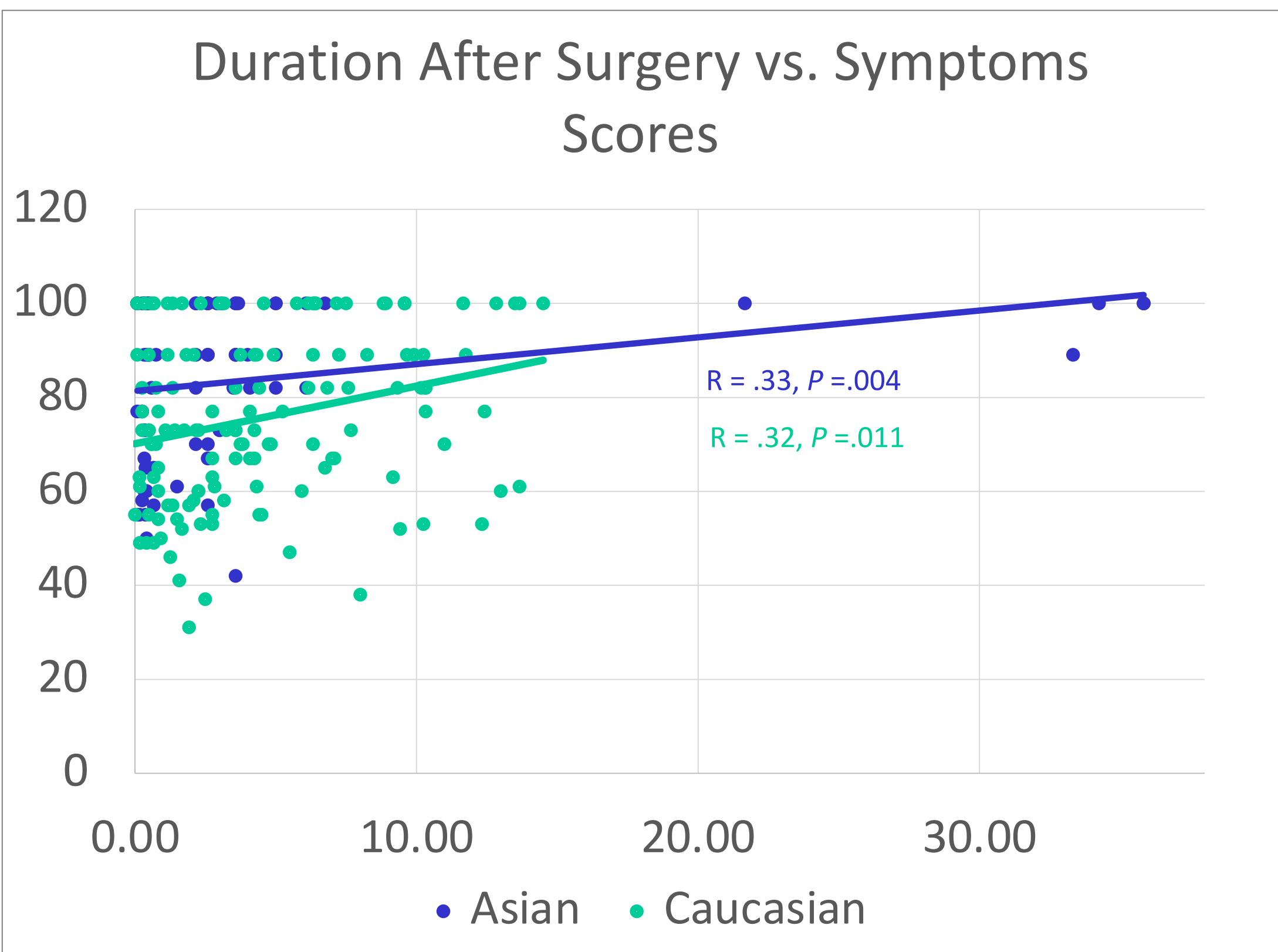


Figure 2: Correlations between symptoms scores and duration after surgery

Results

Of the respondents, 50.3% were Asian and 49.7% were Caucasian. Patients underwent blepharoplasty (n=56), rhinoplasty (n=21), eyelid revision (n=19), face lift (n=18), Moh's surgery (n=7), chin augmentation (n=6), craniotomy (n=6), and other procedures (n=16). Caucasian patients scored significantly better on the SCAR-Q (mean rank=86 vs. 64), appearance (mean rank=89 vs. 61), psychosocial (mean rank=83 vs. 67), and CS (mean rank=93 vs. 58) scales than Asian patients ($P=.003$, $P<.001$, $P=.017$, and $P<.001$ respectively).

Specifically, Caucasian patients had a significantly better perception of their scar's wideness, thickness, length, color, and overall size than Asian patients did ($p<.001$, $p<.001$, $p<.001$, and $p<.001$ respectively). Asian patients felt more negative about their scars in regard to getting upset if people see the scar and feeling self conscious during sexual encounters than Caucasian patients did ($p=.030$, $p<.001$ respectively), as well as greater insecurities about their scar holding them back in their careers and causing an unprofessional appearance ($p<.001$ and $p<.001$ respectively).

There was a significant correlation between duration after surgery and symptoms scores for Asian ($r=0.326$, $P=.004$) and Caucasian patients ($r=0.319$, $P=.011$) (Figure 2).

Conclusions

Asian patients are more likely to have more negative perceptions of their scar's appearance, symptoms, psychosocial impact, career impact, and sexual well-being impact than Caucasian patients. Scar symptoms may improve over time while appearance, psychosocial, career, and sexual well-being impact may not. This study highlights the need to improve scar follow-up care, counseling, or other enhancement measures for patients of differing ethnicities.

References

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