

To Operate or Not to Operate? Burden of Reconstructive Surgery on Quality of Life of Pediatric Patients with Facial Differences

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Background

Pediatric patients with congenital and traumatic facial differences often undergo multiple reconstructive surgeries throughout childhood. These surgeries can have impacts on several aspects of the health-related quality of life (HR-QoL) of patients and their families.

Methods

Children and their parents (N = 196 dyads) completed the validated Craniofacial HR-QoL survey in English or Spanish.

Subscales	Diagnostic cohorts
Bullying	Cleft lip and/or palate (CLP)
Peer Dynamics	Craniofacial Conditions (CFC) craniosynostosis
Family Dynamics	hemifacial microsomia
Psychological Impact	microtia
Appearance Satisfaction	dermatologic condition
Desire for Appearance Change	Facial traumatic injury (FTI)
	Surgical Burden (# surgeries for patient) minus (avg # of surgeries per cohort)

Results

	CLP	CFC	FTI
Age (years)	12.0 ± 3.4	12.7 ± 3.5	12.9 ± 3.5
Sex (F)	58.6%	56.5%	46.4%
Age at first surgery (months)	7.2 ± 13.6	54.5 ± 97.8	18.6 ± 46.8
Number of surgeries	4.9 ± 3.4	3.4 ± 4.8	0.2 ± 0.5

Table 1 Child demographics

QoL	Independent variables	R ²	B (SE)
Patient-report			
Appearance Satisfaction	Patient current age (years)	.047	.066 (.24)*
Desire for Appearance Change	Surgical burden	.068	.060 (.023)*
	Patient sex (F)		.397 (.188)*
Parent-report			
Bullying	Surgical burden	.104	.068 (.017)**
	Patient current age (years)		-.044 (.020)*
Peer Dynamics	Surgical burden	.074	.057 (.016)*
Psychological Impact	Surgical burden	.038	.042 (.017)*
Appearance Satisfaction	Patient sex (F)	.095	.378 (.161)*
	Surgical burden		.047 (.020)*
	Age at first surgery (years)		-.003 (.001)*
Desire for Appearance Change	Surgical burden	.124	.062 (.022)*
	Patient sex (F)		.457 (.178)*

Table 2 Multiple linear regression analyses. (*) significant at α = .05, (**) significant at α = .001. Diagnostic bucket and socioeconomic status (SES) did not statistically predict QoL (proxied independently by parent education level, parent occupation skill level, and SES index).

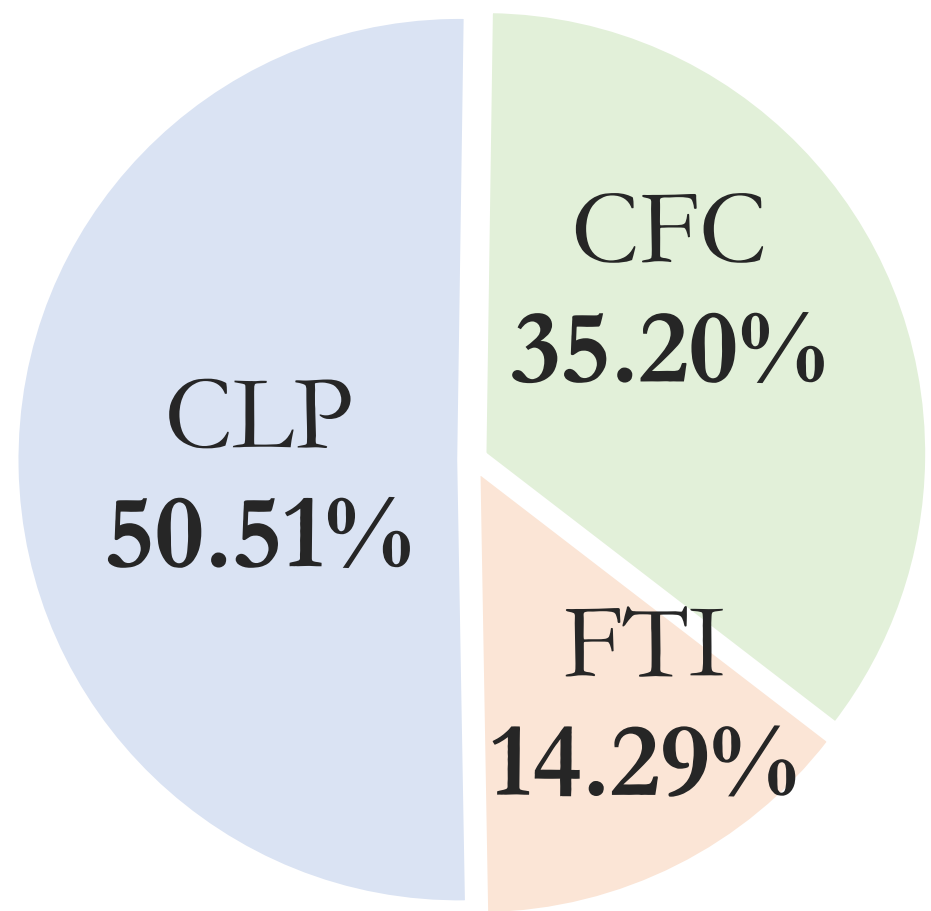
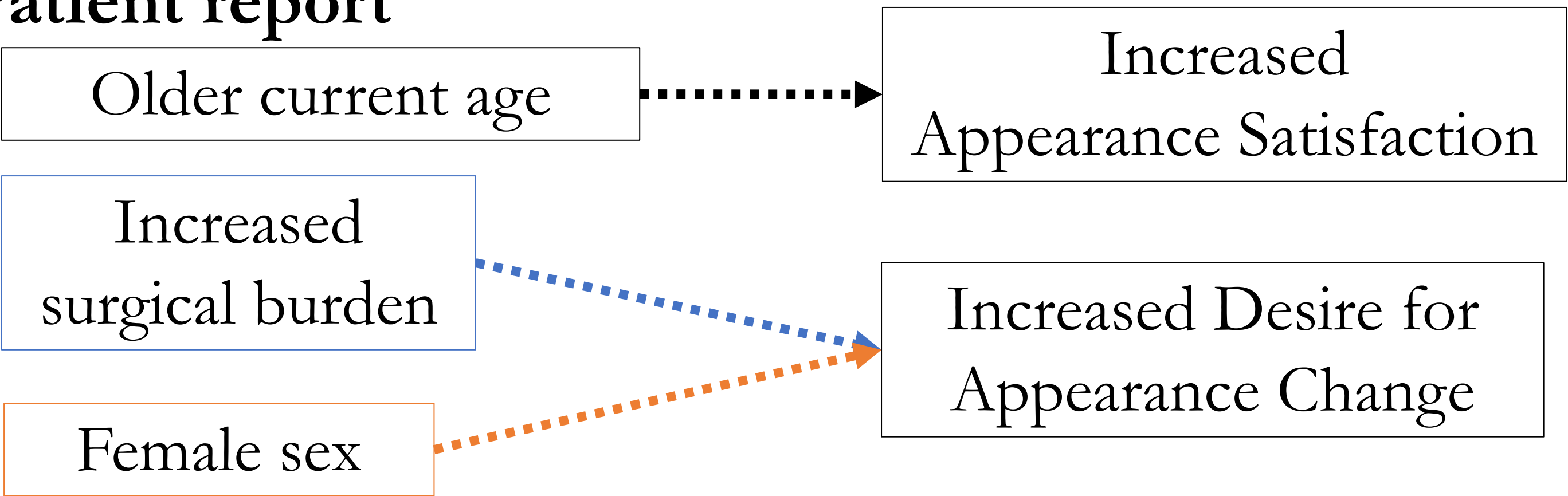


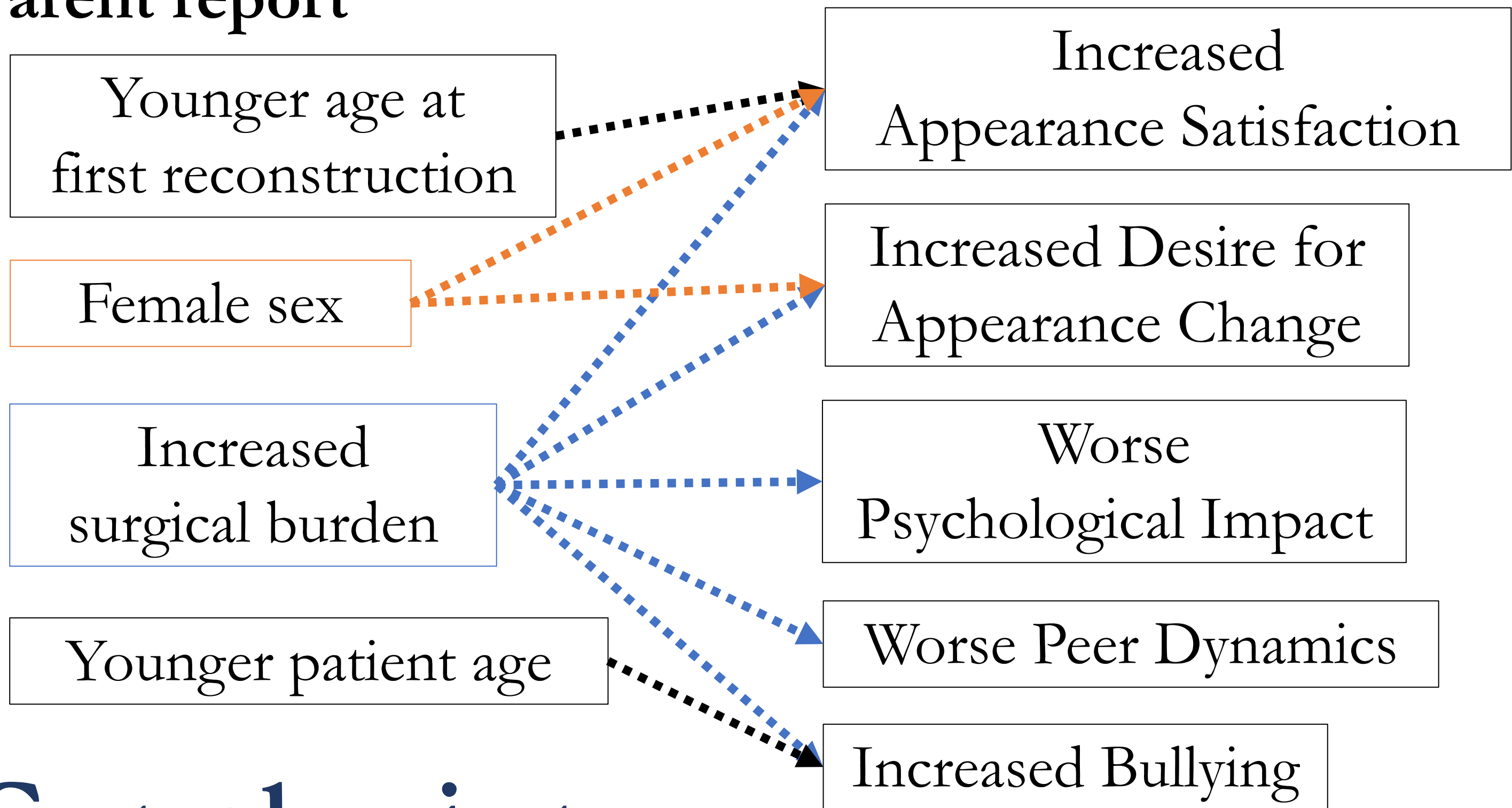
Figure 1 Diagnostic buckets

Results

Patient report



Parent report



Conclusion

Surgical burden and female sex statistically predicted worse QoL. Older current age and younger age at first surgery statistically predicted better QoL. Neither diagnostic bucket nor SES statistically predicted QoL. These findings highlight the importance of customized evaluation of patient factors prior to surgery.