

BACKGROUND

Cleft lip and palate (CLP) are common congenital diagnoses with an incidence of about 1:1000 live births in the United States.¹ Having CLP along with the complex care required can potentially impact the psychosocial well-being of the patients.^{2,3} Patients' quality of life before, during, and after treatment can be assessed using the The Youth Quality of Life Instrument Facial Differences (YQOL-FD) Module.^{4,5} This assessment module has been used and validated in numerous studies and has been adopted in multiple healthcare delivery organizations to assess patients' quality of life scores. An increased understanding of quality of life in youth with CLP is needed for improved screening and intervention.

PURPOSE

This study aimed to describe the quality of life in youth with cleft lip and palate (CLP) with class III malocclusion (Figure 1) based on medical and sociodemographic variables.

METHODS

Participants with CLP who were receiving care from the Children's Hospital Los Angeles and Seattle's Children's Hospital craniofacial teams completed the YQOL-FD Module pre-treatment. The self-administered questionnaire includes 30 perceptual items that yield 5 Perceptual subscales: Positive Consequences, Coping, Negative Consequences, Negative Self-Image, and Stigma. Higher Positive Scale scores (Positive Consequences and Coping) indicate a good quality of life, while higher Negative Scale scores (Negative Consequences, Negative Self-Image, and Stigma) indicate a poor quality of life.⁵ Multiple regression analyses were run for each subscale with predictors of sex, age, cleft type, number of surgeries, Great Ormond Street, London and Oslo (GOSLON) Yardstick rating (Figure 2), household size, socioeconomic status (SES), and insurance type.

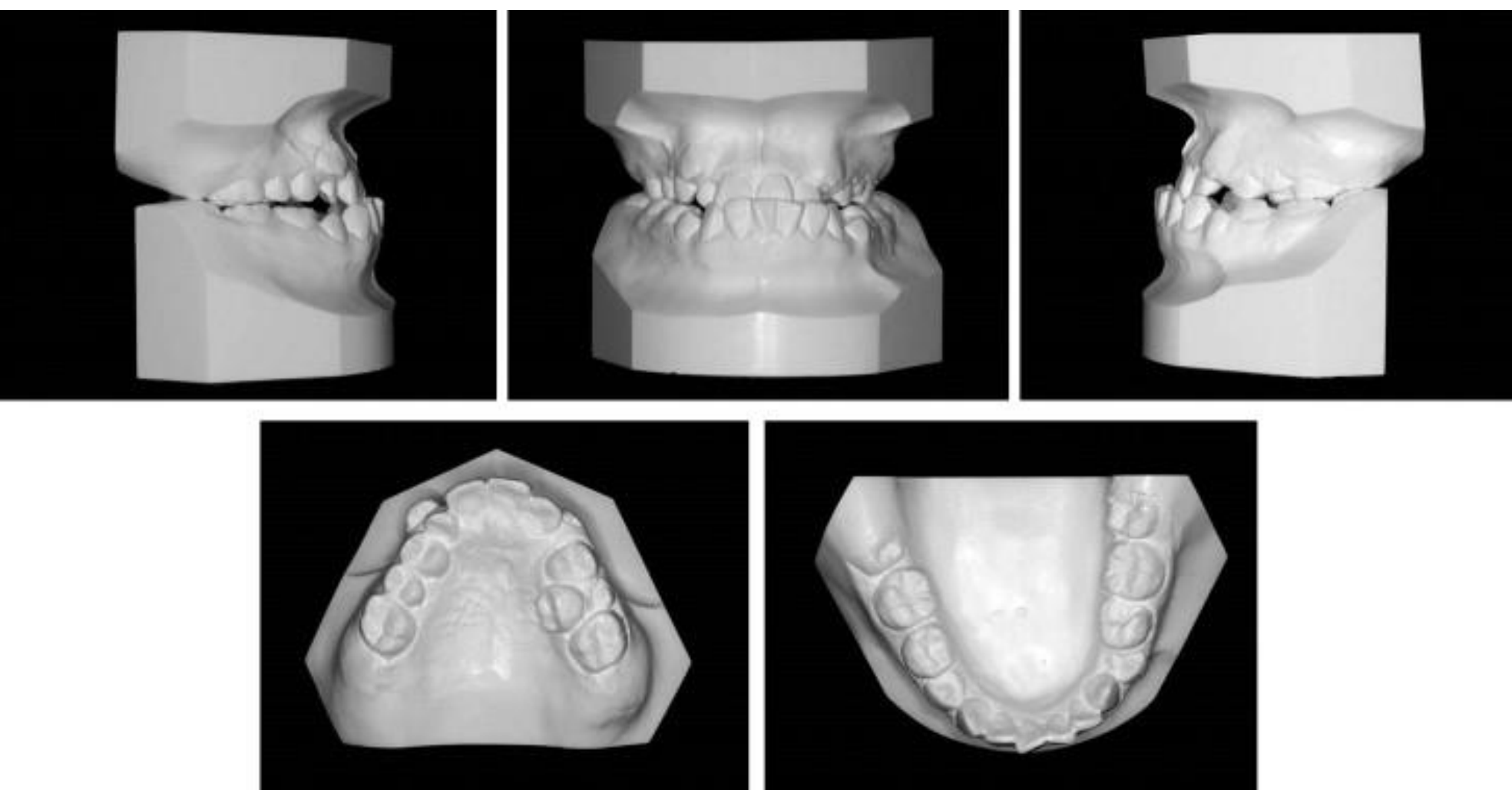


Figure 1. Class III malocclusion in a patient with CLP

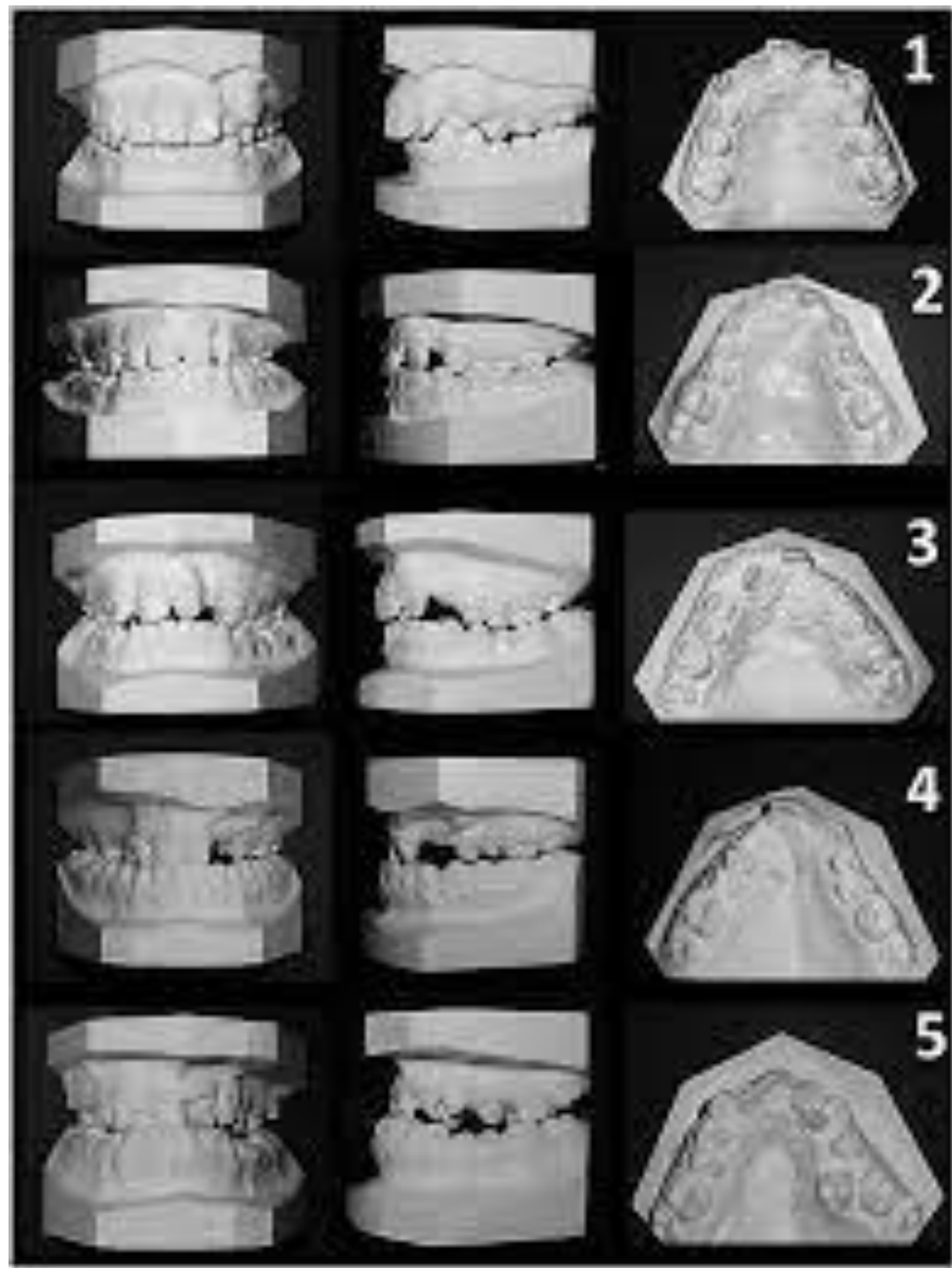


Figure 2. GOSLON Yardstick rating

RESULTS

PARTICIPANT INFORMATION

The age of the participants (N=114) ranged from 11-22 years old (M=17.8, SD=2.9) and 88% of the patients had unilateral CLP and 22% had bilateral CLP. The GOSLON classifications were ratings of 3 (14%), ratings of 4 (51%), and ratings of 5 (35%) (Figure 3). The participants had a range of 2-11 cleft-related surgeries with an average of 5.4 (SD=1.9). The majority were female (57%), Latinx (68%), and had public insurance (62%). Household size was 2-15 people (M=4.7, SD=1.8) and low socioeconomic status was the highest group with 43%.

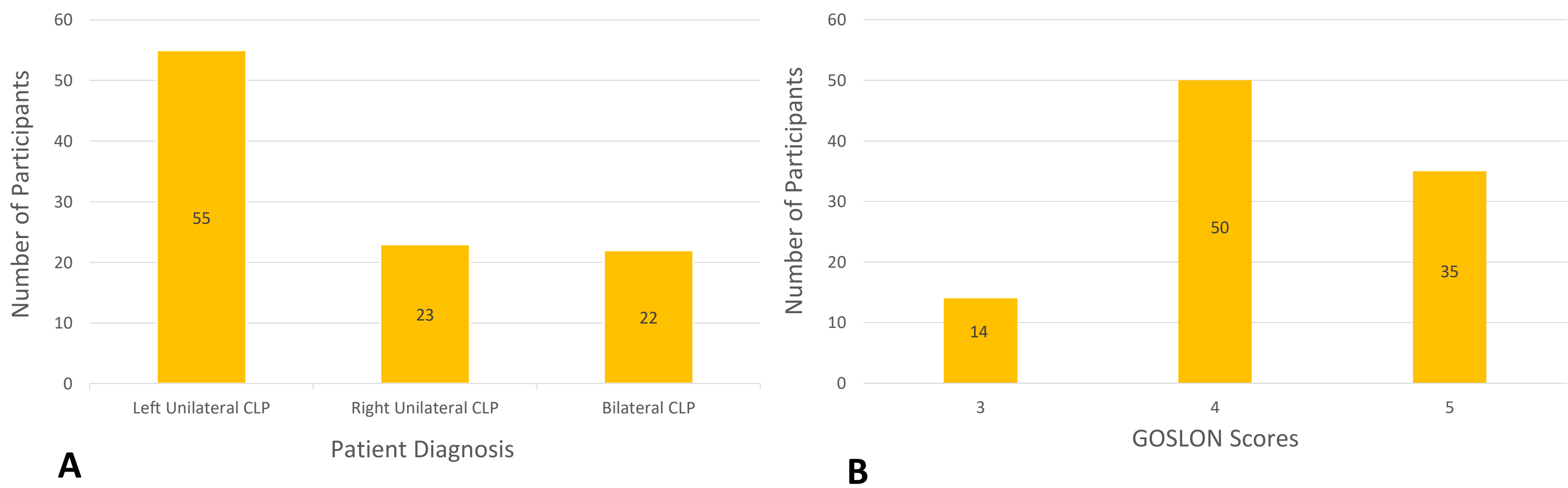


Figure 3. Distribution of participants based on A) patient diagnosis and B) GOSLON scores

REGRESSION ANALYSIS BASED ON YQOL-FD PERCEPTUAL SCALES

Public insurance was a significant predictor for lower Positive Consequences ($\beta=-0.29$, $P=.023$) and Coping ($\beta=-0.31$, $P=.018$) (Table 1). Higher Negative Consequences was predicted by having a bilateral CLP ($\beta=0.29$, $P=.009$). Higher Negative Self-Image was predicted by older age ($\beta=0.24$, $P=.033$) and having a bilateral CLP ($\beta=0.30$, $P=.005$). Higher Stigma was also predicted by having a bilateral CLP ($\beta=0.46$, $P<.001$) (Table 2).

	Positive Consequences			Coping		
	β	t	p	β	t	p
Sex	-.19	-1.81	.075	-.04	-.38	.706
Age	.19	1.74	.086	.09	.75	.454
Cleft Type	.09	.82	.417	.16	1.47	.145
Number of Surgeries	-.03	-.24	.813	.02	.18	.856
GOSLON	-.13	-1.26	.211	-.20	-1.91	.060
Household Size	-.14	-1.25	.214	.14	1.27	.210
Family SES	.17	1.40	.166	.15	1.21	.228
Insurance	-.29	-2.32	.023	-.31	-2.43	.018

Table 1. Regression analyses of Positive Perceptual subscales (Positive Consequences and Coping) with predictors of sex, age, cleft type, number of surgeries, GOSLON rating, household size, family SES, and insurance.

	Negative Consequences			Negative Self-Image		
	β	t	p	β	t	p
Sex	.01	.09	.930	-.093	-.89	.378
Age	.16	1.45	.164	.237	2.17	.033
Cleft Type	.29	2.70	.009	.300	2.90	.005
Number of Surgeries	.13	1.11	.273	.018	.16	.872
GOSLON	.14	1.37	.174	.129	1.26	.210
Household Size	.01	.06	.950	-.116	-1.08	.284
Family SES	-.03	-.21	.836	.073	.61	.543
Insurance	.03	.20	.840	-.073	-.59	.555

	Stigma		
	β	t	p
Sex	-.11	-1.11	.270
Age	.11	1.02	.309
Cleft Type	.46	4.57	<.001
Number of Surgeries	.01	.06	.955
GOSLON	-.02	-.17	.868
Household Size	-.01	-.10	.921
Family SES	-.12	-1.04	.301
Insurance	-.07	-.60	.553

Table 2. Regression analyses of Negative Perceptual subscales (Negative Consequences, Negative Self-Image and Stigma) with predictors of sex, age, cleft type, number of surgeries, GOSLON rating, household size, family SES, and insurance.

CONCLUSIONS

Differences in quality of life of adolescents with CLP were demonstrated using the YQOL-FD module. Certain medical and sociodemographic variables were associated with lower perceived quality of life. Among the surveyed participants, lower quality of life (i.e., low Positive Scale scores and high Negative Scale scores) was significantly related to adolescents with bilateral CLP, aged 16 years or older, and with public insurance. These potential risk factors can assist providers in identifying possible lowered quality of life in their patients with CLP so that they may be linked to appropriate resources.

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