What Difference Can a Minute Make? Social Skills and First Impressions of Youth With Craniofacial Differences

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Objective: **To determine whether raters' first impressions of youth with craniofacial differences are modifiable.**

Design: **Observational study of the association between first impressions and social skills as related to youth aged 11 to 18 years with craniofacial differences.**

Setting: **University research offices and clinics.**

Participants: **Youth aged 11 to 18 years with (n = 29) and without (n = 31) craniofacial differences; adults (n = 40), dental/medical students (n = 46), and education students (n = 29), all without craniofacial differences. Participants were recruited from medical clinics and through community advertising at all three study sites.**

Outcome Measures: **The First Impressions Rating Scale.**

Results: **After viewing 1-minute portrayals of positive social skills by actors with craniofacial differences, raters' perceptions moved significantly in the positive direction for all 26 attributes on the First Impressions Rating Scale; whereas, after viewing negative social skills, ratings moved significantly in the negative direction for 25 of 26 First Impressions Rating Scale attributes.**

Conclusions: **It appears that first impressions others have of youth with craniofacial differences are significantly affected by how these youth present themselves in social situations, suggesting that positive social skills may help reduce the amount of stigma that youth with craniofacial differences encounter.**

KEY WORDS: *adolescent, craniofacial differences, social skills, stigma*

The human face plays a critical role in human evolution, development, and social interactions (Cole, 1998). Long before someone develops spoken language, the face communicates important emotional and social messages. Infants preferentially gaze at the faces of others and imitate and respond to facial expressions before they perform any other motor or language tasks (Stern, 1985). The impact that appearance can have on psychological development and social relationships is apparent in studies on facial attractiveness, which has been shown to influence how people are perceived in a wide range of settings (Bersheid, 1980; Cunningham, 1999). People who are judged as more attractive are perceived by others in more favorable terms in general (e.g., more intelligent, friendly, trustworthy), often referred to as the ''beauty is good'' hypothesis (Eagly et al., 1991). Although caution must be exercised in extrapolating from the general attractiveness literature to craniofacial malformations (Pertschuk and Whitaker, 1987; Bennett and Stanton, 1993), the literature on stigma has demonstrated how looking different or having a stigmatizing health condition affects social responses (Goffman, 1963; Ablon, 1981). In his seminal work, Goffman (1963) defined *stigma* as the negative attributions others make about one's character, identity, intelligence, and other attributes based upon a visible mark that distinguishes an individual as different from others. A distinction has further been made between ''enacted'' and ''perceived or felt'' stigma (Scambler and Hopkins, 1986). *Perceived stigma* is defined as the self-hatred, shame, or blame felt by individuals when they perceive they are being judged by others due to a visible mark, whereas *enacted stigma* is when the individual directly experiences the manifest effects of stigma, such as discrimination, rejection, or physical abuse.

Children and youth with craniofacial differences (CFDs, defined as visible facial differences from birth or due to injury/disease) generally experience fewer positive social contacts with peers and have fewer opportunities to learn appropriate social behaviors than their nonaffected peers

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(Nash, 1995; Endriga and Kapp-Simon, 1999; Hunt et al., 2006). Research on children with CFDs has most often identified inhibition, shyness, and social withdrawal as characteristics that may require professional intervention (Kapp-Simon et al., 1992). Kapp-Simon and McGuire (1997), reporting on an observational study of 25 adolescents (13 with CFDs), noted that adolescents with CFDs were generally seated at the periphery of the group. Socially anxious youth often withdraw from social interaction, finding it difficult to sustain conversations with peers (Erath et al., 2007), and there is evidence that socially anxious youth devote attention to social threat cues at the expense of attending to general social interaction cues (Vasey and Daleiden, 1996). *Social skills* have been defined as the specific behaviors that enable one to be judged as socially competent by others on a particular social task (McFall, 1982). The social skills that are needed for maintaining conversations may be particularly important for establishing and maintaining friendships during early adolescence, when reciprocal self-disclosure and trust develop (Parker et al., 2006), and there is evidence that social avoidance interferes with the development of appropriate social and personal relationships (Ballenger et al., 1998). The social behaviors associated with peer acceptance are the opposite of those generally attributed to children and adolescents with CFDs who are experiencing difficulties, suggesting that social skills may account for the inhibition observed in these youth (Rumsey and Harcourt, 2007).

It has been reported that higher self-perceived stigmatization by adolescents with CFDs is negatively correlated with both self-concept and their level of social skill development; whereas, greater satisfaction with one's physical appearance is positively correlated with self-concept and social skills (Usitalo, 2002). For young adolescents, parent-reported social skills have been found to be significantly predictive of adjustment and degree of social inhibition (Kapp-Simon et al., 1992). Similarly, Pope and Ward (1997a) reported that children who were less socially competent based on parent reports were more likely to describe themselves as socially anxious and dissatisfied with peer relationships. Self-satisfaction with craniofacial appearance may be a salient variable affecting social adjustment in early adolescence, with those children who are less satisfied with their appearance reporting greater loneliness and fewer same-sex close friends. Parents of those adolescents reported social problems including withdrawal and being disliked by peers (Pope and Ward, 1997b). Similarly, Richman (1997) reported that 12-year-olds who were rated by clinicians as having more CFDs were more likely to display increased behavioral inhibition, which may also be related to the quality of social interaction. Kapp-Simon and McGuire (1997) found that natural social interaction patterns differed for adolescents with and without visible CFDs. In general, adolescents with CFDs engaged in fewer social interactions than their peers and were less effective in their attempts to become involved in the social network within their school. Following a laboratory study investigating the relationship among social skills, CFDs, and social acceptance, Rumsey et al. (1986) concluded that increasing the social skills of those with CFDs may be a powerful enough factor to counter the stigma of having a CFD. Rutter (1996) noted that the development of social competence generally is likely when children's social skills are strengthened by positive factors in the environment.

Although there is some evidence that social skills training is effective in reducing social anxiety for adults with CFDs (Robinson et al., 1996), there have been fewer studies of social skills training with youth who have CFDs (Kish and Lansdown, 2000). One of the rare exceptions was an observational study conducted by Kapp-Simon et al. (2005) in which it was found that after a social skills training intervention, adolescents with CFDs participated in significantly more self-initiated conversations with nonaffected peers lasting at least three interchanges. Particularly germane to the present study, it was also found that peers were more likely to respond to these initiated conversations after the intervention. Blakeney et al. (2005) also found indications of efficacy for a short-term, intensive social skills training program for adolescents with CFDs resulting from burns.

Based upon the current literature regarding stigmatization of youth with CFDs, the following questions were addressed in this study: (1) Can raters' first impressions of facial difference severity be changed by viewing youth with facial differences exhibit positive and negative social skills? (2) Can raters' first impressions of character attributes be changed by viewing youth with facial differences exhibit positive and negative social skills? (3) Do groups of raters differ in how they rate the character attributes of youth with facial differences?

Methods

This was an observational study of the attributes that people assign to youth with CFDs as a proxy for stigma and how that is associated with the perceived severity of the CFD. No existing instruments were found that could be used to assess the attributes ascribed to youth with CFDs. Therefore the first step in the study was to develop a rating scale of attributes that people ascribe to viewing a photograph of a youth with a CFD for the first time, which we call the First Impressions Rating Scale (FIRS) (see below, and also Topolski et al., unpublished data, for information on the instrument's development). To accomplish this, focus groups were conducted with youth with and without CFDs to determine what attributes they use to describe themselves, how they describe other youth, and how they think others describe them.

Description of the Social Skills Video Vignettes

Through contacts at the American Cleft Palate–Craniofacial Association, we learned that there was an acting troupe composed of youth and young adults with CFDs in New York City called Inner Faces. Inner Faces was started in 1991 as a support group for youth and young adults with CFDs. Because these youth had significant personal experience dealing with the issue of stigma through their theater work, it was thought that there would be minimal potential harm for them to portray these issues through the video vignettes.

The head of the acting troupe was contacted to determine the group's interest in participating in the project, and Inner Faces was enthusiastic about participating. Five youth with CFDs responded favorably and contacted project personnel or agreed to have project personnel contact them for further explanation. To obtain youth actors without CFDs, the five CFD actors were asked if they had any friends or associates with acting experience who might want to participate. This yielded four non-CFD actors. These actors also contacted associates with whom they had performed in other productions, as did the film crew. A total of 11 non-CFD adolescent actors, one adult, and one 5-year-old child participated. Informed consent/assent and copyright releases were obtained from all actors and their parents. Rehearsals and filming took place over a 3-day period at the New York University Medical Center and was facilitated by Shelly Cohen from the Institute for Reconstructive and Plastic Surgery at the hospital. Jodie Morrow and Jeryl Brunner of Inner Faces served as paid acting coaches and assistant directors for the production of the video vignettes and engaged in recruitment, script editing, preproduction rehearsal, and direction of the video vignettes. The professional adolescent actors used for this portion of the study were independent contractors and were paid for their participation in the project.

Focus groups were conducted with adolescents with and without CFDs in order to ascertain the social skills that they viewed as important to positive self-presentation. The positive social skills selected for portrayal were approach, explanation, and humor. The negative social skills selected were confrontation and distancing. A total of 10 video vignettes were produced in five different school settings: (1) a hallway scene where a group of youth are gathered talking about a new movie, and the youth with a CFD approaches and joins the conversation; (2) a gift shop scene, where a young child asks her mother about the CFD of the youth; (3) a cafeteria scene where four youth are seated at a table eating, and one boy asks the youth with a CFD "what happened to your face?"; (4) a locker room scene where a teammate is mocking the youth with a CFD; and (5) a library scene where a youth with a CFD overhears two youth talking about her face. Each vignette lasted approximately 1 minute. In each setting, a different actor with a CFD portrayed both a positive and a negative social skill in negotiating the social situation being depicted. Although the study was not designed specifically to address which social skills worked best per se, Table 1 illustrates the predominant social skills used in each scene.

Sample

Participants were youth aged 11 to 18 years with (n = 29) and without (n = 31) CFDs, adults (n = 40), dental/medical students (n = 46), and education students (n = 29). Although information on CFD diagnoses of the raters was not collected, there were two actors with cleft lip and palate, one with hemangioma, one with Goldenhar syndrome, and one with hemifacial microsomia. The participants were recruited from medical clinics and through community advertising at all three study sites: (1) University of Washington, Seattle, Washington; (2) Northwestern University, Evanston, Illinois; and (3) University of North Carolina, Chapel Hill, North Carolina. Overall, the sample was 62% female and 73% white, and most adults had either some college or were college graduates. Informed written consent/assent was obtained in person by the study coordinator or project manager prior to the rating sessions, and all study procedures were approved by the institutional review boards at each site.

Study Measures

The First Impressions Rating Scale (FIRS) (Topolski et al., unpublished data), a scale developed for this study that assesses negative and positive attributions made of youth with CFDs. This was the main outcome measure used in the study. The FIRS is a 26-item questionnaire rated on 7-point semantic differential scales (see Fig. 1).

A principal components factor analysis of aggregate scores (within-rater groups) revealed a three-factor structure: (1) personal attributes, (2) social attributes, and (3) looks/intelligence (see Tables 2 and 3), accounting for 91% of the variation in the data. Cronbach alphas of the three subscales are .94, .92, and .72, respectively. Known group analyses conducted by severity ratings of CFDs showed good discriminate validity.

The Craniofacial Difference Severity Rating Scale, a 7-point scale developed for this study, is based on the Clinician Global Impression (Guy, 1976), which asks the rater to assess the "differentness" of the target face compared with "most faces." The Likert scale response

TABLE 1 Positive and Negative Social Skills Portrayed in Each Video Scene

Scene	*Positive Social Skill*	*Negative Social Skill*
Hallway	approach	distancing
Gift shop	explanation	confrontation
Cafeteria	explanation	confrontation
Locker room	humor	confrontation
Library	explanation	confrontation

FIGURE 1 Example: FIRS Semantic Differential Scale.

options are *not at all different, minimally different, mildly different, moderately different, markedly different, very different*, and *extremely different*.

Procedure

Rating sessions were conducted with 2 to 10 participants per session. Participants were first shown sample photographs of youth from the two extremes of the Craniofacial Difference Severity Rating Scale in order to orient the raters to the scale. Next, the participants were shown a still picture of the actor with a facial difference in the social skills video vignette and asked to rate the youth on the Craniofacial Difference Severity Rating Scale and the FIRS. Participants were then shown a 1-minute video vignette of the same youth in one of five social settings portraying either a positive or a negative social skill. After the video vignette had been viewed, participants were asked to again rate the still picture of the youth, with each photo receiving 350 individual ratings. Participants rated a total of five youth prevideo and postvideo during the session. Both the social setting order and positive/negative social skills portrayed were randomized. The randomization procedure resulted in 444 positive vignette and 431 negative vignette viewings.

Analyses

Descriptive analyses were conducted on the FIRS items to assess data entry errors, missing values, and fit between the distributions and the assumptions of multivariate analyses. The variables were examined separately for the five rating groups. Regression analyses were conducted to assess whether specific features, such as gender, ethnicity, or craniofacial condition, were related to outliers. Univariate outliers were assessed using *z*-score and multivariate outliers were assessed by the Mahalanobis distance measure with a chi-square distribution at alpha $< .001$.

TABLE 2 Paired *t* Tests Comparing Prevideo and Postvideo Positive Scene Ratings

						Paired Differences (Postvideo – Prevideo Rating)			
		Prevideo Rating		*Postvideo Rating*				*95% CI of Difference*	
Rating	*n*	*M**	*SD*	*M*	*SD*	*M*†	*SD*	*Lower*	*Upper*
Personal domain	443	0.95	1.10	2.02	0.78	1.07	0.98	0.98	1.16
(1) untrustworthy/trustworthy	443	0.81	1.31	1.89	1.02	1.08	1.31	0.98	1.21
(2) rude/polite	442	0.84	1.36	2.17	0.99	1.34	1.45	1.20	1.47
(3) uncaring/caring	443	1.01	1.23	1.99	0.90	0.98	1.27	0.86	1.10
(4) unfriendly/friendly	444	1.00	1.34	2.36	0.83	1.37	1.26	1.25	1.48
(5) mean/nice	444	1.09	1.24	2.15	1.06	1.05	1.38	0.93	1.18
(6) insensitive/sensitive	442	0.96	1.29	1.30	1.40	0.34	1.60	0.19	0.49
(7) unpleasant/pleasant	444	0.96	1.27	2.03	1.07	1.07	1.37	0.94	1.19
(8) unlikable/likable	444	1.10	1.30	2.21	0.92	1.12	1.30	1.10	1.24
(9) judgmental/accepting	444	0.81	1.36	2.06	1.04	1.25	1.49	1.11	1.39
(10) angry/calm	444	1.09	1.34	1.97	1.15	0.87	1.53	0.73	1.02
(11) uptight/easygoing	444	0.90	1.41	2.09	1.10	1.19	1.55	1.04	1.33
(12) cold/warm person	444	0.88	1.32	2.03	1.03	1.16	1.38	1.03	1.29
Social domain	444	0.14	1.30	1.72	0.86	1.58	1.17	1.47	1.68
(13) lonely/social	443	0.14	1.77	2.04	1.16	1.91	1.77	1.74	2.07
(14) shy/outgoing	443	0.02	1.83	2.08	0.99	2.07	1.91	1.89	2.24
(15) boring/fun	443	0.48	1.45	1.76	1.06	1.27	1.42	1.14	1.41
(16) sad/happy	444	0.26	1.71	1.78	1.21	1.53	1.66	1.37	1.68
(17) loser/cool	444	0.14	1.39	1.40	1.20	1.27	1.42	1.13	1.40
(18) unpopular/popular	444	−0.18	1.52	1.00	1.37	1.18	1.51	1.04	1.32
(19) gloomy/cheerful	444	0.31	1.55	1.88	1.18	1.57	1.57	1.42	1.71
(20) emotionally fragile/strong	444	0.07	1.61	1.82	1.36	1.76	1.91	1.58	1.93
(21) tired/energetic	444	0.06	1.62	1.41	1.30	1.35	1.65	1.20	1.50
(22) unsure/confident	444	0.13	1.58	2.01	1.16	1.88	1.64	1.73	2.04
Looks/intelligence domain	444	0.68	1.11	1.46	0.89	0.78	0.87	0.70	0.86
(23) dull/interesting	443	0.63	1.45	1.78	1.07	1.14	1.42	1.01	1.28
(24) unattractive/attractive	444	−0.08	1.62	0.37	1.61	0.45	1.35	0.33	0.58
(25) scary/not scary	444	1.47	1.58	2.03	1.32	0.56	1.34	0.43	0.68
(26) stupid/smart	444	0.71	1.37	1.66	1.08	0.95	1.32	0.83	1.08

* M = mean; SD = standard deviation; CI = confidence interval.

† Difference between prevideo and postvideo ratings is significant at the alpha $< .01$ level.

TABLE 3 Paired *t* Tests Comparing Prevideo and Postvideo Negative Scene Ratings

						Paired Differences (Postvideo – Prevideo Rating)			
		Prevideo Rating		*Postvideo Rating*				*95% CI of Difference*	
Rating	*n*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*Lower*	*Upper*
Personal domain	431	0.84	1.07	−0.66	1.56	−1.50*	1.61	−1.65	−1.35
(1) untrustworthy/trustworthy	430	0.73	1.41	0.03	1.60	−0.70*	1.73	−0.86	−0.53
(2) rude/polite	431	0.70	1.37	−1.02	1.95	−1.72*	2.12	−1.93	−1.52
(3) uncaring/caring	431	0.91	1.28	−0.13	1.76	−1.04*	2.03	−1.23	−0.85
(4) unfriendly/friendly	431	0.87	1.41	−0.83	1.89	−1.70*	1.96	−1.89	−1.52
(5) mean/nice	431	0.94	1.36	−0.85	1.88	−1.78*	2.12	−1.98	−1.58
(6) insensitive/sensitive	431	0.97	1.31	0.61	2.13	−0.36*	2.43	−0.59	−0.13
(7) unpleasant/pleasant	431	0.78	1.38	−0.93	1.78	−1.71*	1.89	−1.88	−1.53
(8) unlikable/likable	431	1.03	1.30	−0.63	1.80	−1.66*	1.79	−1.83	−1.49
(9) judgmental/accepting	430	0.70	1.40	−0.95	1.79	−1.65*	2.00	−1.84	−1.46
(10) angry/calm	431	0.90	1.41	−1.40	1.84	−2.30*	1.99	−2.49	−2.11
(11) uptight/easygoing	431	0.78	1.39	−1.12	1.75	−1.91*	1.87	−2.08	−1.73
(12) cold/warm person	429	0.77	1.39	−0.74	1.76	−1.50*	1.89	−1.68	−1.32
Social domain	431	0.12	1.21	−0.88	1.03	−1.00*	1.09	−1.11	−0.90
(13) lonely/social	431	0.14	1.67	−1.29	1.65	−1.43*	1.88	−1.61	−1.25
(14) shy/outgoing	431	−0.09	1.67	0.17	1.68	0.26	2.14	0.06	0.46
(15) boring/fun	431	0.53	1.30	−0.09	1.27	−0.62*	1.42	−0.75	−0.48
(16) sad/happy	430	0.13	1.63	−1.54	1.34	−1.67*	1.67	−1.83	−1.51
(17) loser/cool	430	0.14	1.36	−0.93	1.35	−1.07*	1.47	−1.21	−0.93
(18) unpopular/popular	431	−0.11	1.44	−1.61	1.21	−1.50*	1.38	−1.63	−1.37
(19) gloomy/cheerful	431	0.29	1.49	−1.20	1.43	−1.49*	1.59	−1.64	−1.34
(20) emotionally fragile/strong	431	0.14	1.56	−1.21	1.70	−1.34*	1.89	−1.52	−1.17
(21) tired/energetic	430	0.01	1.51	−0.25	1.41	−0.26*	1.69	−0.42	−0.10
(22) unsure/confident	431	0.04	1.50	−0.88	1.63	−0.91*	1.84	−1.09	−0.74
Looks/intelligence domain	431	0.71	1.12	0.14	1.20	−0.57*	0.96	−0.66	−0.48
(23) dull/interesting	431	0.74	1.35	0.38	1.44	−0.36*	1.48	−0.50	−0.22
(24) unattractive/attractive	431	−0.03	1.60	−0.79	1.62	−0.77*	1.36	−0.90	−0.64
(25) scary/not scary	431	1.39	1.63	0.53	1.99	−0.86*	1.66	−1.02	−0.70
(26) stupid/smart	431	0.74	1.25	0.44	1.23	−0.31*	1.37	−0.44	−0.18

* Difference between prevideo and postvideo ratings is significant at the alpha $< .01$ level.

To assess for differences in FIRS scores before and after viewing the videos, difference scores were calculated and entered into a multivariate analysis of variance (MANOVA) along with severity ratings, sex of rater, type of video scene (negative versus positive), video scene (e.g., cafeteria, hallway), and rating group. We followed the multivariate analyses with a pairwise *t* test to understand the nuances of the individual items. All analyses were conducted using the Statistical Package for the Social Sciences (SPSS), version 13.0 (SPSS Inc., Chicago, IL).

Eight cases were found with missing data on 15 of the FIRS items, and 31 cases had missing severity ratings. No univariate or multivariate outliers were found. For the paired *t* test analyses of the items, cases with missing data were handled by pairwise deletion for each variable; thus, only cases with nonmissing values on both variables were used in each test. This resulted in 437 ratings, on average, being available per item, with a range of 416 to 444 (n for each test is provided in the tables).

Results

The results of the MANOVA showed no significant differences between the rating groups, sex, or any significant two-way interactions. There was a significant difference in the centroids of the FIRS by video scenario type (Wilks $\lambda = 772$, $p = .000$), in that viewing either a positive or a negative scenario accounted for 61% of the variation in the data.

Paired *t* tests were performed comparing the raters' prevideo ratings of the actors' still picture to the postvideo rating of the same still picture to better understand how participants shifted their perceptions of the actor after viewing a video vignette in which the actor displayed a negative or positive social skill. Due to the number of comparisons performed, the criteria for identifying significant differences between prevideo and postvideo ratings was set at alpha $< .01$ to adjust for multiplicity for severity ratings and at alpha $< .001$ for FIRS ratings. The mean differences displayed account for direction and degree of shift, with a negative mean difference signifying a negative shift in the mean rating, and larger mean difference suggesting a greater impact of the video on the rater's perception of the actor portraying the social skill.

The results of the paired *t* tests on the CFD severity ratings revealed that after viewing the negative social skills vignettes, facial difference severity ratings increased significantly (Table 4). This may be an effect of increased stigma being attached to the photograph after the actor negatively interacts with others in the video vignette and/or a result of the rater having a better view of the facial difference as a result of viewing the video interaction. There was no

TABLE 4 Prevideo and Postvideo Facial Severity Rating

						Paired Differences (Postvideo – Prevideo Rating)			
		Prevideo Rating		*Postvideo Rating*				*95% CI of Difference*	
	n	*M**	*SD*	*M*	*SD*	*M*	*SD*	*Lower*	*Upper*
Severity rating: positive scenes	428	3.03	1.51	3.15	1.45	0.12	0.99	0.02	0.21
Severity rating: negative scenes	416	3.06	1.57	3.49	1.54	0.42†	0.92	0.33	0.51

* M = mean; SD = standard deviation; CI = confidence interval.
† Difference between prevideo and postvideo ratings is significant at $p < .01$.

corresponding change in perception of facial difference severity associated with viewing the positive vignettes.

Our results showed that after viewing portrayals of positive social skills, FIRS ratings moved significantly in the positive direction on all three domains and the 26 attributes on the scale (Table 2); whereas, after viewing negative social skills, ratings moved significantly in the negative direction on all three domains and on 25 of 26 FIRS attributes (Table 3). From prevideo to postvideo viewing, youth using positive social skills were rated to be more trustworthy, interesting, polite, social, outgoing, caring, friendly, fun, happy, cool, nice, attractive, popular, sensitive, pleasant, cheerful, not scary, emotionally strong, likable, energetic, accepting, calm, easygoing, smart, warm, and confident. From prevideo to postvideo viewing, youth using negative social skills were rated to be more untrustworthy, rude, lonely, uncaring, unfriendly, boring, sad, loser, mean, unattractive, unpopular, insensitive, unpleasant, gloomy, scary, emotionally fragile, unlikable, tired, judgmental, angry, uptight, stupid, cold, and unsure.

Due to sample size and study design limitations (all rater groups did not view a standardized mix of vignettes), we were unable to test comparisons of postvideo ratings shifts by type of rater (e.g., such as between youth and adult raters), but the descriptive trends in the data indicated that the postvideo ratings shifts were comparable across all rating groups.

Discussion

Somewhat contrary to the ''beauty is good'' hypothesis, we found that raters' first impressions of youth with CFDs were very malleable depending upon the social skills exhibited. These findings are significant in that they highlight the potential for social skills training to reduce the social stigma directed at youth with CFDs and support the contention of Rumsey et al. (1986) and Rumsey and Harcourt (2007) that increasing the social skills of youth with CFDs may be enough to counter some of the stigma of having a CFD. The findings also support those of one of the only other studies of social skills in youth with CFDs, in which it was shown that after social skills training, nonaffected peers of these youth were more likely to respond to initiated conversations by these youth than before the intervention (Kapp-Simon et al., 2005).

This research provides the first objective data to demonstrate that the judgments people make about youth with CFDs can be changed depending on how youth present themselves in difficult social circumstances. Portrayal of interactions in which youth used positive social skills such as good eye contact, good social initiation skills, and direct communication about their CFD resulted in more positive ratings in most categories; whereas, portrayals in which those skills were not used resulted in more negative ratings. It is interesting that only after viewing the negative vignettes did rater perception shift toward greater facial difference severity; whereas, viewing the positive vignettes appears to have had little effect. These findings indicate a need for social skills and empathy training for youth and adults who do not have CFDs, as well as for youth with CFDs. It seems reasonable to expect that those without CFDs would benefit from social skills training at least as much as youth with CFDs would.

One weakness of this study was that the sample of raters was largely white and of relatively high socioeconomic status. A second drawback was that the pre–social skill ratings were based on a still picture, whereas the post–social skill ratings were based on video, which provides more information on which to make an assessment of social attributes. A replication of the study using a video of a youth making a neutral statement for the prevideo rating would provide a more comparable stimulus to the post–social skill rating. A third weakness was that due to sample size and design limitations, the study was not able to adequately address the question of differences in ratings between different types of raters, a suitable subject for future research. A substantial strength of this study is that it is the first to draw a direct empirical link between the portrayal of positive social skills and the reduction of enacted stigma, and it paves the way for further research into the specific types of social skills that are the most effective in different settings.

Although it is important to continuously educate society at large about the importance of not judging others based on personal appearance and to be sensitive to others with differences, the development of more research-based social skills training programs tailored to the individual strengths and weaknesses of youth with CFDs could go a long way toward reducing the amount of enacted stigma these youth encounter.

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References

Ablon J. Stigmatized health conditions. *Soc Sci Med*. 1981;15:5–8.

Ballenger JC, Davidson JRT, Lecrubier Y, Nutt DJ, Bobes J, Beidel DC, Ono Y, Westernberg HGM. Consensus statement on social anxiety disorder from the International Consensus Group on Depression and Anxiety. *J Clin Psych*. 1998;59:54–60.

Bennett ME, Stanton M. Psychotherapy for persons with craniofacial deformities: can we treat without theory? *Cleft Palate J*. 1993;30: 406–410.

Bersheid E. Overview of the psychological effects of physical attractiveness. In: Lucker GW, Ribbens KA, McNamara JA, eds. *Psychological Aspects of Facial Form. Craniofacial Growth Series Monograph, No. 11*. Ann Arbor, MI: Center for Human Growth and Development; 1980:1–23.

Blakeney P, Thomas C, Holzer C, Rose M, Berniger F, Meyer WJ. Efficacy of a short-term, intensive social skills training program for burned adolescents. *Burn Care Rehabil*. 2005;26:546–555.

Cole J. *About Face*. Cambridge, MA: MIT Press; 1998.

Cunningham SJ. The psychology of facial appearance. *Dent Update*. 1999;26:438–443.

Eagly AH, Ashmore RD, Makhijani MG, Longo LC. What is beautiful is good, but…: a meta-analytic review of research on the physical attractiveness stereotype. *Psychol Bull*. 1991;110:109–128.

Endriga MC, Kapp-Simon KA. Psychological issues in craniofacial care: state of the art. *Cleft Palate Craniofac J*. 1999;36:3–10.

Erath SA, Flanagan KS, Bierman KL. Social anxiety and peer relations in early adolescence: behavioral and cognitive factors. *J Abnorm Child Psychol*. 2007;35:405–416.

Goffman E. *Stigma—Notes on the Management of Spoiled Identity*. Upper Saddle River, NJ: Prentice-Hall; 1963:2–3, 43–51.

Guy W. *ECDEU Assessment Manual for Psychopharmacology —Revised*. Rockville, MD: U.S. Department of Health, Education, and Welfare, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, NIMH Psychopharmacology Research Branch, Division of Extramural Research Programs; 1976:218–222. DHEW Publication No. ADM 76–338.

Hunt O, Burden D, Hepper P, Stevenson M, Johnston C. Self-reports of psychosocial functioning among children and young adults with cleft lip and palate. *Cleft Palate Craniofac J*. 2006;43:598–605.

Kapp-Simon KA, McGuire DE. Observed social interaction patterns in adolescents with and without craniofacial conditions. *Cleft Palate Craniofac J*. 1997;34:380–384.

Kapp-Simon KA, McGuire DE, Long BC, Simon DJ. Addressing quality of life issues in adolescents: Social skills interventions. *Cleft Palate Craniofac J*. 2005;42:45–50.

Kapp-Simon KA, Simon DJ, Kristovich S. Self-perception, social skills, adjustment, and inhibition in young adolescents with craniofacial anomalies. *Cleft Palate Craniofac J*. 1992;29:352–356.

Kish V, Lansdown R. Meeting the psychosocial impact of facial disfigurement: developing a clinical service for children and families. *Clin Child Psychol Psychiatry*. 2000;5:497–512.

McFall RM. A review and reformulation of the concept of social skills. *Behav Assess*. 1982;4:1–33.

Nash P. *Living With Disfigurement: The Psychosocial Implications of Being Born With a Cleft Lip and Palate*. Avebury: Aldershot; 1995.

Parker JG, Rubin KH, Erath SA, Wojslawowicz JC, Buskirk AA. Peer relationships, child development, and adjustment: a developmental psychopathology perspective. In: Cicchetti D, Cohen DJ, eds. *Developmental Psychopathology: Vol. 1: Theory and Methods*. 2nd ed. New York: Wiley; 2006:96–161.

Pertschuk MJ, Whitaker LA. Psychosocial considerations in craniofacial deformities. *Clin Plast Surg*. 1987;14:163–168.

Pope AW, Ward J. Factors associated with peer social competence in preadolescents with craniofacial anomalies. *J Pediatr Psychol*. 1997a;22:455–469.

Pope AW, Ward J. Self-perceived facial appearance and psychosocial adjustment in preadolescents with craniofacial anomalies. *Cleft Palate Craniofac J*. 1997b;34:396–401.

Richman LC. Facial and speech relationships to behavior of children with clefts across three age levels. *Cleft Palate Craniofac J*. 1997;34:390–395.

Robinson E, Rumsey N, Partridge J. An evaluation of the impact of social interaction skills training for facial disfigured people. *Br J Plast Surg*. 1996;1:281–289.

Rumsey N, Bull R, Gahagan D. A preliminary study of the effects of social skills training for improving the quality of social interaction for the facially disfigured. *Soc Behav*. 1986;1:143–145.

Rumsey N, Harcourt D. Visible difference amongst children and adolescents: issues and interventions. *Dev Neurorehab*. 2007;10: 113–123.

Scambler G, Hopkins A. Being epileptic: coming to terms with stigma. *Soc Health Illness*. 1986;8:26–43.

Rutter M. Transitions and turning points in developmental psychology: as applied to the age span between childhood and mid-adulthood. *Int J Behav Dev*. 1996;19:603–626.

Stern DN. *The Interpersonal World of the Infant*. New York: Basic Books; 1985.

Usitalo AM. Perceptions of stigmatization, attributional style, and adjustment in adolescents with craniofacial conditions. *Dissert Abstr Int*. 2002;63:3028.

Vasey MW, Daleiden EL. Information-processing pathways to cognitive interference in childhood. In: Sarason IG, Pierce G, Sarason B, eds. *Cognitive Interference: Theory, Methods, and Findings*. Hillsdale, NJ: Erlbaum; 1996:117–138.