

Parent Reports of the Psychosocial Functioning of Children With Cleft Lip and/or Palate

Orlagh Hunt, Ph.D., M.Sc., B.Sc., Donald Burden, Ph.D., M.Sc., B.D.S., F.D.S.R.C.P.S., F.F.D.R.C.S.I., F.D.S.R.C.S., D.Orth.R.C.S., M.Orth.R.C.S., Peter Hepper, Ph.D., B.Sc., C.Psychol. F.B.Ps.S., Mike Stevenson, B.Sc., F.S.S., Chris Johnston, Ph.D., B.Sc., B.D.S., M.Orth., F.D.S.R.C.S.

Objectives: (1) to determine the opinion of parents regarding the psychosocial functioning of their child with cleft lip and/or palate (CLP); (2) to identify predictors of psychosocial functioning; and (3) to determine the level of agreement between children with CLP and their parents.

Participants: One hundred twenty-nine parents of children with CLP and 96 parents of children without CLP participated in this cross-sectional study.

Outcome measures: Parental opinion of the child's self-esteem, anxiety, happiness, and problems caused by facial appearance were assessed using visual analogue scales. Parents completed the Child Behavior Checklist and were interviewed.

Results: Children with CLP were more anxious ($p < 0.05$), less happy with their appearance ($p < 0.001$), and in general ($p < 0.05$) had lower self-esteem ($p < 0.05$) and greater behavioral problems ($p < 0.001$) compared with non-CLP children. Parents reported that their child with CLP was teased more often ($p < 0.001$) and was less satisfied with his/her speech ($p < 0.01$) compared with reports of parents in the control group. A number of factors affected parents' ratings of their child's psychosocial functioning (presence of CLP, appearance happiness, previous history of CLP, and visibility of scar). Children who had been teased were more anxious ($p \leq 0.01$), less happy with their appearance ($p < 0.001$) and had greater behavioral problems ($p < 0.001$).

Conclusions: Parents of children with CLP reported various psychosocial problems among their children. Parents considered children who had been teased to have greater psychosocial problems.

KEY WORDS: *cleft, psychosocial, teasing*

This paper focuses on parental opinion of the psychosocial status of children with cleft lip and/or palate (CLP). A large study has previously been conducted by the authors to ascertain self-reports of children with CLP regarding their psychosocial functioning (Hunt et al., 2006). One hundred and sixty children with CLP and 113 children who did not have CLP took part in that cross-sectional study. Psychological functioning (anxiety, self-esteem, depression, and behavioral problems) was assessed using standardized psychological questionnaires.

Dr. Hunt is Lecturer, School of Dentistry, Queen's University Belfast. Dr. Burden is Senior Lecturer and Consultant Orthodontist, School of Dentistry, Queen's University Belfast. Dr. Hepper is Professor, School of Psychology, Queen's University Belfast. Dr. Stevenson is Senior Lecturer, Epidemiology and Public Health, Queen's University Belfast. Dr. Johnston is Senior Lecturer and Consultant Orthodontist, School of Dentistry, Queen's University Belfast.

This study was funded by the Research and Development Office, Northern Ireland Department of Health, Social Services and Public Safety.

Submitted July 2006; Accepted September 2006.

Address correspondence to: Dr. Orlagh Hunt, School of Dentistry, Queen's University Belfast, Grosvenor Road, Belfast BT12 6BP, Northern Ireland. E-mail o.hunt@qub.ac.uk.

The children also rated their happiness with their facial appearance using a 100-mm visual analogue scale. Social functioning, including experiences of teasing/bullying, was assessed using a semistructured interview. The most significant predictor of poor psychosocial functioning was having been teased rather than having CLP *per se*. Examination of the descriptive data revealed that the children who were most often teased were those children who had CLP. This suggests that children with CLP are teased more often and this teasing leads to more psychosocial distress.

The use of multiple informants is widely used in clinical psychology as it is recognized that each type of informant potentially contributes unique knowledge about the individual. Following on from the results of the previous self-report study, this study explores the opinion of parents to determine their view on the factors which influence their child's psychosocial functioning.

A high incidence of teasing over facial appearance is reported by those with CLP (Bernstein and Kapp, 1981; Heller et al., 1981; Noar, 1991, 1992; Turner et al., 1997). However, few studies have examined parent reports of teasing among

TABLE 1 Details of Participants

	<i>Mother</i>	<i>Father</i>	<i>Other</i>	<i>Total</i>
CLP	93	31	5	129
Control	75	14	7	96
Total	168	45	12	225

children with CLP. Turner et al. (1997) reported that parents were not always aware when their child had been teased and, even when they were, parents often incorrectly suggested that features unrelated to the cleft were the focus of the teasing.

A number of previous studies have assessed parental opinion of children with CLP in terms of psychosocial functioning. However, these studies have mainly focused on single issues such as behavioral problems (Richman, 1978, 1997; Schneiderman and Auer, 1984; Tobiasen and Hiebert, 1984; Heller et al., 1985) or satisfaction with facial appearance (Noar, 1991; Broder et al., 1992; Thomas et al., 1997). It is difficult to generalize about the overall psychosocial functioning of children with CLP by studying a single psychological construct.

A small number of studies have focused on a range of issues including depression and anxiety (Millard and Richman, 2001) or self-confidence (Turner et al., 1997). However, these studies have not included a control group which limits the conclusions that can be drawn. A number of studies have employed control groups (Brantley and Clifford, 1979; Slifer et al., 2003; Speltz et al., 1993). However, these studies assessed various aspects of psychosocial functioning using different measures making it difficult to draw clear conclusions.

While it is recognized that children provide vital information about themselves, it is also important to obtain the opinion of others who are responsible for the care of the child with CLP. A small number of studies have included teacher reports in their assessment of psychological problems in children with CLP (Richman, 1976, 1978; Schneiderman and Auer, 1984). Teachers have rated children with CLP as having more internalizing behaviors (Richman, 1976), being more inhibited in the classroom (Richman, 1978), and having more delinquent behavior (Schneiderman and Auer, 1984) compared with parents' reports. The authors of these papers suggest that children with CLP may behave differently in the home environment than the less familiar school environment which may prompt the display of more problematic behaviors.

According to Carr (1997) information from parents should be sought to give further insight into a child's psychological

functioning. Parents play a major role in determining the nature and number of surgical and other interventions which are used to correct the aesthetic and functional aspects of CLP. It is therefore important to understand the factors which influence parents' perceptions of their child's psychosocial well-being. Due to their intimate knowledge of the child with CLP, parents may be more reliable in assessing psychosocial well-being which the child may be unwilling to reveal to clinicians and researchers. Parents can usually provide more information about their children than can any other single source and therefore their reports are an important part of the diagnostic process (Achenbach, 1991a).

The aims of the study were to (1) assess parental opinion of the psychological functioning of children with CLP, (2) identify the predictors of psychosocial functioning, and (3) determine the level of agreement between children with CLP and their parents.

METHOD

Participants

One hundred and twenty-nine parents of children with CLP were recruited to take part in the study. A control group of 96 parents of children without CLP acted as controls. Parents of children with CLP were asked to participate at the same time their child was taking part in a larger study of the psychosocial status of children with CLP (Hunt et al., 2006). In some cases a guardian (usually a grandparent or aunt) accompanied the young person. Following agreement that they knew the child well enough, the guardian was asked to take part on behalf of the child's parent. Table 1 presents the details of the parents/guardians who participated in the study. Table 2 presents details of their children.

Parents of children with CLP were recruited from the three main Hospital Orthodontic Departments in Northern Ireland. Only parents of children with a repaired nonsyndromic cleft lip and/or palate and whose child did not have a learning disability or any other significant medical history were included. Parents in the control group were recruited from a wide range of sources by circulating requests among parents who were members of university and hospital staff and parents attending for hospital appointments. These parents then indicated to the research team whether they had a son or daughter aged between 8 and 18 years who would be willing to participate in

TABLE 2 Details of Children Whose Parents Participated

		<i>Test Group</i>	<i>Control Group</i>
Sample size		n = 129	n = 96
Age		8 to 18 y (mean = 12.4 y)	8 to 18 y (mean = 11.9 y)
Gender	Male	85 (66%)	47 (49%)
	Female	44 (34%)	49 (51%)
Visibility of cleft	Visible (involves lip)	84 (65%)	—
	Not visible	45 (35%)	—
Previous family history of cleft lip and/or palate	Yes	45 (35%)	—
	No	84 (65%)	—

TABLE 3 Number of Parents Completing Each Measure

Measure	Test Group	Control Group	Total
Visual analogue scales	129	96	225
Child Behavior Checklist (CBCL)	128	96	224
Semistructured interview	129	96	225

the larger study. Parents were only included in the control group where their children did not have CLP or any family history of CLP. Therefore, no siblings of children with CLP were included in the study. Parents were included if their child did not have a learning disability or a significant medical history and had never previously been referred for or received orthodontic treatment. An independent samples *t* test demonstrated that there was no significant difference between parents in the test group and parents in the control group in terms of socioeconomic status ($t = 1.178$, $df = 214$, $p > 0.05$). Parental opinion of the child's psychosocial functioning was assessed using a number of methods including visual analogue scales, a standardized questionnaire, and a semistructured interview.

Visual Analogue Scales

Each parent was asked to give their opinion regarding their son or daughter on six constructs using 100-mm visual analogue scales: the child's self-esteem (very poor, very good); anxiety at the present time (very anxious, not anxious); anxiety in general (always anxious, never anxious); happiness with facial appearance (very unhappy, very happy); happiness in general (very unhappy, very happy); and problems experienced by the child as a result of his/her facial appearance (many problems, no problems). Scoring for some scales were reversed to ensure that in all cases higher scores reflected fewer problems. The scales were selected to reflect similar aspects of functioning measured in the study of children's self-reports (Hunt et al., 2006).

Behavioral Problems

Parents completed the Child Behavior Checklist (CBCL) problem scales (Achenbach, 1991a). This is a 118-item ques-

tionnaire which derives a total behavioral problem score as well as an internalizing behavior and externalizing behavior score. Higher scores indicate greater behavioral problems. Normative data was obtained from more than 2000 children aged between 2 and 18 years of age with *t*-scores available for all of the subscales. Achenbach (1991a) reported an alpha coefficient of 0.96 ($p < 0.001$) for the 118 problem items. Test-retest reliability is reported as 0.89 for the problem scales (Achenbach, 1991a). The CBCL correlates highly with other measures of child behavior (Achenbach, 1991a).

Social Functioning

Each parent took part in a semistructured interview which addressed their child's social functioning. For the purposes of this paper, only interview data which were binomial in nature (i.e., yes or no answers) were included in the analysis. This related to questions about teasing/bullying, satisfaction with appearance, and satisfaction with speech. In terms of teasing, parents were asked if their child had ever been teased/bullied and why they were teased/bullied. Teasing/bullying was recorded as problematic if the parent reported that it caused their child significant upset.

To assess parents' opinions regarding their child's satisfaction with their facial appearance each parent was asked what feature(s), if any, their child disliked about their appearance and whether their child desired a change to their appearance. In terms of satisfaction with speech, parents were asked if they thought their child was satisfied or dissatisfied with their speech in general.

Ethical approval for the study was granted by the Research Ethics Committee at Queen's University Belfast and indemnity was provided by the Royal Group of Hospitals, Belfast. Written informed consent was obtained from all parents.

RESULTS

Table 3 presents the number of parents completing each measure in the study. Table 4 presents the means values and standard deviations for the six visual analogue scales. A series

TABLE 4 Visual Analogue Ratings Provided by Parents of Children With Cleft Lip and/or Cleft Palate (CLP) and Parents of Children Without CLP

Visual Analogue Scales	Group	<i>n</i>	Minimum	Maximum	Mean*	Standard Deviation	<i>t</i>	<i>df</i>	Significance <i>p</i>
Higher self-esteem	Cleft	129	3	100	70.0	22.6	-1.704	223	>0.05
	Control	96	5	100	74.8	19.1			
Less anxiety at present	Cleft	129	3	100	68.4	25.0	-1.321	223	>0.05
	Control	96	0	99	72.9	26.0			
Less anxiety in general	Cleft	129	0	98	68.0	23.2	-2.205	223	<0.05
	Control	96	29	100	74.0	17.1			
Greater happiness with facial appearance	Cleft	129	0	99	61.0	26.0	-6.431	223	<0.001
	Control	96	42	100	79.0	15.6			
Greater happiness in general	Cleft	129	5	100	78.5	17.2	-2.688	223	<0.01
	Control	96	27	100	84.0	13.4			
Less problems as a result of facial appearance	Cleft	129	3	99	69.0	26.7	-5.998	223	<0.001
	Control	96	23	100	85.8	14.9			

* Higher score indicates fewer problems on each scale.

of independent samples *t* tests were conducted to determine whether there were any differences in the ratings given on the six visual analogue scales by parents of children with CLP compared with the ratings given by parents of children without CLP. Children with CLP were described by their parents as having greater anxiety in general, less happiness with their facial appearance, being more unhappy in general, and having more problems as a result of their facial appearance compared with reports of parents whose children did not have CLP (Table 4).

Further analysis was performed to determine whether the gender of the child had an influence on parents' ratings on the visual analogue scales. There were no significant differences in terms of gender for any of the visual analogue scales, except for the scale which measured problems as a result of the young person's facial appearance ($t = -2.51, df = 223, p < 0.05$). An independent samples *t* test revealed that parents of male children ($\bar{x} = 73.1 \pm 26.2$) considered their son to have more problems as a result of their appearance compared with parents of female children ($\bar{x} = 80.7 \pm 19.5$).

Behavioral Problems

Two hundred and twenty-four parents completed the CBCL. The total score for the CBCL and the internalizing and externalizing subscales total scores were not normally distributed. Therefore, the data were transformed using square root transformations to ensure that the data conformed to the assumptions of ANOVA and that a small number of high scores did not unduly influence the analysis. ANOVA revealed that there was a significant difference in the number of behavioral problems reported by parents of children with CLP compared with the number reported by parents of children who did not have CLP ($F = 22.77, df = 1, p < 0.001$). Parents of children with CLP ($\bar{x} = 4.17 \pm 1.83$) rated their children as having more behavioral problems compared with parents of children without CLP ($\bar{x} = 3.06 \pm 1.60$).

There was a significant difference between the ratings given by parents of children with CLP and parents of children without CLP ($F = 9.95, df = 1, p < 0.01$) for internalizing behaviors. ANOVA revealed that children with CLP ($\bar{x} = 2.16 \pm 1.29$) were described by their parents as having more internalizing behaviors compared with parents of children without CLP ($\bar{x} = 1.65 \pm 1.04$). There was also a significant difference between the ratings given by parents for externalizing behaviors ($F = 6.50, df = 1, p < 0.05$). Children with CLP were described as having more externalizing behaviors ($\bar{x} = 1.97 \pm 1.23$) compared with parents of children of children without CLP ($\bar{x} = 1.54 \pm 1.25$).

Social Functioning

Eighty (62.5%) parents of children with CLP reported that their child had been teased compared with 18 (19%) parents of children who did not have CLP (chi-square = 40.2, $df = 1, p < 0.001$). Parents of children with CLP reported that their

child was teased about a cleft-related feature of their facial appearance (69%) or their speech (25%). Parents of children with CLP also reported that their child was teased about their appearance but not specifically a cleft feature or an issue related to appearance such as weight or height (6%). Parents of children without CLP who had been teased ($n = 18$) reported that their child was teased about their teeth ($n = 6$), height or weight ($n = 10$), or speech ($n = 2$).

Parents of children with CLP more often reported that their child was unhappy with a particular aspect of their facial appearance compared with parents of children in the control group (chi-square = 25.18, $df = 1, p < 0.001$). Fifty-one percent ($n = 66$) of parents of children with CLP described their child as being unhappy with a specific feature of their facial appearance. Of these, 41% ($n = 27$) reported that their child was unhappy with his/her teeth, 26% ($n = 17$) reported that their child was unhappy with his/her nose, and 23% ($n = 15$) reported that their child was unhappy with their lip. The remainder believed their child was unhappy with their scar or the shape of their jaw. Seventeen percent ($n = 16$) of parents of children without CLP reported that their child had concerns over their facial appearance. This mainly concerned dissatisfaction with teeth (62%, $n = 10$) or acne (38%, $n = 6$).

Parents also highlighted their children's desire to change their appearance. In the case of children with CLP, parents reported that 38% ($n = 49$) of their children would like to change a feature of their facial appearance. This compared to just 5% ($n = 5$) of children without CLP. Parents of children with CLP described their child as dissatisfied with his/her speech more often ($n = 19, 15%$) compared with parents of children without CLP ($n = 3, 3%$).

Multivariable Analysis

There were eight main outcomes in this study: behavior problems, satisfaction with speech, happiness with facial appearance, self-esteem, anxiety at the present time and in general, happiness in general, and problems due to facial appearance. Multivariable analysis in the form of regression analyses (linear and logistic) was performed to determine which subject characteristics had an influence on their parents' ratings of psychosocial functioning.

To conduct multivariable analysis with the scores from the six visual analogue scales would have generated multiple analyses which by chance alone would produce some significant results. Therefore, a decision was made to reduce the dataset and to examine the reliability of the scales by conducting a principal components analysis (Fayers and Machin, 2001). Factor analysis using principal components analysis with varimax rotation revealed two main components (Table 5). Component 1 consisted of self-esteem, satisfaction with facial appearance, happiness in general, and problems experienced as a result of facial appearance. This component had a Cronbach's Alpha of 0.82 indicating high reliability. As all of the scales were the same length an unweighted factor was created by summing the scores on these outcomes and dividing by 4. This

TABLE 5 Factor analysis of psychosocial outcomes

Outcome	Factor	
	1	2
Self-esteem	0.725	0.279
Anxiety at present	0.103	0.883
Anxiety in general	0.310	0.777
Happiness with facial appearance	0.860	0.162
Happiness in general	0.827	0.086
Problems as a result of facial appearance	0.730	0.260

new factor was referred to as “appearance happiness.” The second component from the factor analysis comprised anxiety at the present time and anxiety in general. However, Chronbach’s Alpha was weak for the second component (0.64) and therefore the two anxiety measures are considered separately in the multivariable analysis.

Five outcomes were investigated using multivariable analysis: behavioral problems, satisfaction with speech, appearance happiness, anxiety at present, and anxiety in general. To determine which independent variables were suitable for inclusion in the multivariable analyses, a series of independent samples *t* tests, ANOVAs, and Pearson’s correlation coefficients were performed by examining the relationship between each outcome and the following independent variables: presence of CLP, age of child, gender of child, socioeconomic status, child’s position in family, presence of a visible scar, previous family history of CLP, and whether the child has been teased/bullied. Independent variables were only entered into the regression analyses when they proved to be significant or almost significant ($p < 0.1$) in the univariate analyses. A stepwise forward technique was employed.

Linear regression analysis was performed where the parents’ standardized scores for behavioral problems were entered as the dependent variable. Results of the regression analysis revealed that having a previous history of CLP in the family, having a visible scar and having been teased were associated with children receiving higher ratings for behavioral problems from their parents (Table 6).

Based on preliminary analyses, satisfaction with speech was entered as the dependent variable in a binary logistic regression analysis. The final model (Table 7) revealed that having CLP was a predictor of parents’ reports of their child being dissatisfied with their speech (Wald statistic = 6.921, $df = 1$, $p < 0.01$).

Children who had a visible scar and had been teased received lower scores for appearance happiness from their parents (Table 8). Having been teased was also predictive of par-

TABLE 7 Binary Logistic Regression Analysis for Parents’ Opinion of Child’s Satisfaction With Speech

	B	SE	Wald	df	Significance <i>p</i>	Exp(B)
Group	1.676	0.637	6.921	1	0.009	5.345
Constant	1.747	0.249	49.375	1	0.00	5.737

ents reporting increased anxiety at the present time (Table 9) and anxiety in general (Table 10) for their child.

Comparisons were made between parents’ reports of psychosocial functioning and those given by the children in the study of the children’s self-reports (Hunt et al., 2006). Pearson’s correlation coefficient revealed a very poor correlation between the opinion of children and their parents regarding happiness with facial appearance ($r = 0.2$) as measured by 100-mm visual analogue scale. Although children with CLP were unhappy with their facial appearance, they were not as unhappy as their parents believed them to be. The reverse was true of the children and parents in the control group.

A Wilcoxon signed rank test demonstrated that in terms of behavioral problems, regardless of whether CLP was present or not, children described themselves as having more behavioral problems as measured by the Youth Self Report (Achenbach, 1991b) than their parents did ($p < 0.01$).

The vast majority of parents were aware that their child had been teased/bullied and correctly identified the focus of the teasing/bullying. Only one parent from the cleft group and one parent from the control group were unaware that teasing/bullying was taking place. The Kappa statistic revealed moderate agreement between parents and children for satisfaction with speech ($\kappa = 0.5$).

DISCUSSION

This study represents one of the first controlled studies to assess CLP parental opinion across a wide range of psychosocial measures. The results suggest that while not all parents believe their children have psychosocial problems as a result of CLP, the majority of parents believe that, in general, their child with CLP is at some psychosocial disadvantage. Specifically, parents of children with CLP described their child as having significantly less self-esteem, having greater anxiety in general, and being unhappier in general compared with reports of parents of children without CLP. Parents of children with CLP also reported more behavioral problems and less satisfaction with speech compared with reports of parents of children without CLP.

TABLE 6 Linear Regression Analysis for Parents’ Reports of Behavioral Problems*

	Unstandardized Coefficients	SE	Standardized Coefficients	<i>t</i>	Significance <i>p</i>
(Constant)	4.123	0.337		12.253	0.00
Previous history of CLP	−0.591	0.289	−0.133	−2.024	0.04
Visibility of scar	−0.610	0.248	−0.165	−2.462	0.02
Having been teased	0.934	0.245	0.260	3.803	0.00

* Adjusted $r^2 = 0.165$.

TABLE 8 Linear Regression Analysis for Appearance Happiness Factor*

	<i>Unstandardized Coefficients</i>	<i>SE</i>	<i>Standardized Coefficients</i>	<i>t</i>	<i>Significance p</i>
(Constant)	-0.119	0.128		-0.932	0.352
Visibility of scar	-0.594	0.129	0.296	4.612	0.00
Having been teased	-0.549	0.125	-0.280	-4.375	0.00

* Adjusted $r^2 = 0.23$.

Five main outcomes were investigated using multivariable analysis in relation to parents' reports of their child's psychosocial functioning: behavioral problems, satisfaction with speech, appearance happiness, anxiety at the present time, and increased anxiety in general. Having been teased was a main predictor of greater behavioral problems, less appearance happiness (a factor comprising parental opinion of the child's self-esteem, happiness in general, happiness with facial appearance, and problems as a result of facial appearance), increased anxiety at the present time and in general. Having CLP *per se* was not predictive of these outcomes. This finding is similar to the results from the self-reports of CLP children (Hunt et al., 2006). It seems that it is not necessarily the presence of CLP itself that causes psychosocial problems, but the experiences that often accompany CLP, such as teasing. The fact that teasing (which most often took the form of teasing about facial appearance or speech) was a predictor for most of the psychosocial outcomes in this study, suggests that children with CLP receive negative feedback from others about their appearance and speech. It is likely that with society's increasing preoccupation with facial appearance, individuals who deviate from preconceived notions of normal and attractive will experience ever-increasing levels of negative feedback. Changing society's perception of facial attractiveness, while desirable, is not likely to be practical. A more realistic strategy would be to explore if coping mechanisms can be identified which could be used to help support children with CLP.

Another significant predictor of both behavioral problems and appearance happiness was the presence of a visible scar. Parents were more likely to describe their child as having greater behavioral problems and a poorer score on the "appearance happiness" factor if their child had a visible scar. This emphasizes that the cleft type appears to be an important factor in the child's psychosocial functioning and in their parent's perception of their functioning. However, this contrasts with the self-reports of children with CLP where the presence of a visible scar did not affect their reports of behavioral problems (Hunt et al., 2006). This may be due to the fact that the child does not see the scar as often as others while a visible scar may act as a persistent reminder to parents that their child

has CLP and this may affect how they perceive and interact with their child.

A further interesting predictor of parents' increased reports of behavioral problems was the presence of a previous history of CLP in the family. As far as the authors are aware, this has not been established in previous research. A possible explanation for this finding could be that parents with other children or family members with CLP are comparing the behavior of the two individuals with CLP and conclude that one has more behavioral problems than the other. It could also be that any successive child with CLP does have behavioral problems and the parents are accurately representing the situation.

Parents of children with CLP rated their children as having significantly greater behavioral problems compared with parents of children without CLP. Children with CLP were described as having more internalizing behaviors compared with children without CLP. This is similar to previous studies by Harper and Richman (1978) and Richman and Millard (1997). Internalizing behaviors are considered to be a risk factor for developing anxiety disorders. The children with CLP were also described as having higher externalizing scores compared with children without CLP. Although internalizing and externalizing scores represent contrasting kinds of problems they are not mutually exclusive (Achenbach, 1991a). Children with high scores in one area tend to have at least above average scores in the other area as well. Overall, children with CLP had more internalizing problems than externalizing problems in the present study.

As in any study that relies on the reports of others there is the possibility of the influence of confounding variables. Najman et al. (2001) recently suggested a potential influence on parents' reports of their child's behavior—the mental or emotional state of the respondent. Najman et al. (2001) found that as mothers' emotional impairment increased so did their reports of their child's behavior problems. While it is useful for parents to provide insight into their child's functioning it is possible that the parent's own emotional state may be influencing the opinion of their child. CLP in particular has been recognized as a difficult event for the family unit (Bradbury, 1997).

TABLE 9 Linear Regression Analysis for Anxiety at Present*

	<i>Unstandardized Coefficients</i>	<i>SE</i>	<i>Standardized Coefficients</i>	<i>t</i>	<i>Significance p</i>
Constant	74.144	2.254		32.899	0.00
Having been teased	-8.787	3.400	-0.165	-2.585	0.01

* Adjusted $r^2 = 0.17$.

TABLE 10 Linear Regression Analysis for Anxiety in General*

	<i>Unstandardized Coefficients</i>	<i>SE</i>	<i>Standardized Coefficients</i>	<i>t</i>	<i>Significance p</i>
Constant	74.752	1.840		40.627	0.00
Having been teased	-9.599	2.776	-0.227	-3.458	0.001

* Adjusted $r^2 = 0.051$.

Significant differences in reports of behavioral problems among those with CLP and those without CLP warrants attention. Hofstra et al. (2001) found that high rates of behavioral problems during adolescence are risk factors for psychiatric disorders in adulthood and therefore these should not be left untreated. Overall, however, children themselves reported more psychosocial problems than did their parents. According to Achenbach (1991b), differences in scores on the behavior checklist do not necessarily mean that the sources are unreliable or that one source should take precedence over another. It is instead suggested that different sources may reveal different facets of an adolescent's functioning each of which deserves attention.

Content analysis of the data arising from the interviews with parents revealed differences in reports depending on whether their child had CLP or not. Where CLP was present, parents more often reported that their child was teased in relation to their appearance or speech and was unhappy with specific aspects of his/her facial appearance. Parents appeared to recognize the importance of facial appearance to their child during the interview evidenced by the way in which they specifically mentioned aspects of their child's appearance that were of concern.

Children with CLP were more satisfied with their appearance than their parents believed they were, while subjects without CLP were less satisfied with their appearance than their parents believed they were. This is very interesting as it demonstrates that the parent and subject may have different motivations regarding further treatment and may disagree in relation to their satisfaction with treatment outcomes. This has implications about the decision-making process involved in further treatment. Questions arise as to who should make the ultimate decision about further treatment and whether patient or parent satisfaction should take priority. It is possible that even though the young person may not be happy with their facial appearance they have come to accept it while parental expectations of how their child should look remain high.

Five parents disclosed that they do not tell the truth, either to their child or to others, about CLP. While this did not form any part of the analysis as the numbers were too small, this demonstrates the reluctance that some parents feel about discussing this type of anomaly. It seems there is still some stigma associated with having CLP and parents may need some assistance in discussing these difficult issues with their child and with the family as a whole. Bradbury (1997) outlines the importance of facilitating parental adjustment to CLP and highlights the benefit of assisting parents in coming to terms with this condition at prenatal diagnosis (if possible) or immediately after the birth of the baby with CLP.

The most significant predictor of parental reports of psychosocial impairment was a history of teasing. Reassuringly, we know from the self-reports of children that for the most part, they do tell their parents when they are being teased (Hunt et al., 2006) and this is evidenced in the present study by the high numbers of parents who reported that they were aware their child had been teased. Unfortunately, it is not clear whether parents know what to do with this information and whether they have the skills needed to help their child cope when they are being teased.

There is strong evidence from this study and from the study which addressed the self-reports of children with CLP that the impact of teasing is a significant problem among children with CLP. This teasing has been identified by both the children and parents as leading to greater psychosocial problems. The results of these studies suggest a need to deal with teasing among children with CLP as a way to reduce the psychosocial harm which may result. However, the results also suggest that some children with CLP, for as yet unknown reasons, who have similar aesthetics and speech are not teased/bullied. This supports the need for a longitudinal study where children can be followed in the environment where teasing most often takes place (i.e., at school). This would provide a fuller understanding of the teasing/bullying experience of the CLP child particularly the "triggers" that initiate and perpetuate teasing/bullying. More precisely the environmental (family and school) and individual characteristics which appear to "protect" some CLP children from bullying or the effects of bullying could be identified.

Despite improvements in surgical techniques there remains an unacceptable level of teasing/bullying among children with CLP. More information is required on why this is happening and what type of information should be directed at the child, their parents, and schools where teasing takes place.

CONCLUSIONS

1. Parents of children with CLP reported that their child had a number of psychosocial problems.
2. There was some disagreement between children and parents over happiness with facial appearance and the level of behavioral problems.
3. A number of factors (visibility of a scar, appearance happiness, previous history of CLP in the family, and presence of CLP) affected various aspects of psychosocial functioning.
4. Having been teased, rather than having CLP *per se*, was the prominent significant predictor of psychosocial impairment.

5. The results of this study supports the earlier self-report evidence that teasing leads to greater psychosocial problems.

REFERENCES

- Achenbach TM. *Manual for the Child Behavior Checklist/4-18 and 1991 Profile*. Burlington: University of Vermont, Department of Psychiatry; 1991a.
- Achenbach TM. *Manual for the Youth Self Report and 1991 Profile*. Burlington VT: University of Vermont, Department of Psychiatry; 1991b.
- Bernstein NR, Kapp K. Adolescents with cleft palate: body-image and psychosocial problems. *Psychosomatics*. 1981;22:697-703.
- Bradbury E. Cleft lip and palate surgery: the need for individual and family counseling. *Br J Hosp Med*. 1997;57:366-367.
- Brantley HT, Clifford E. Maternal and child locus of control and field-dependence in cleft palate children. *Cleft Palate J*. 1979;16:183-187.
- Broder HL, Smith FB, Strauss RP. Rehabilitation of patients with clefts: parent and child ratings of satisfaction with appearance and speech. *Cleft Palate Craniofac J*. 1992;29:262-267.
- Carr T. Assessment and measurement in clinical practice. In: Lansdown R, Rumsey N, Bradbury E, Carr T, Partridge J, eds. *Visibly Different: Coping With Disfigurement*. Oxford: Butterworth-Heinemann; 1997:131-146.
- Fayers PM, Machin D. *Quality of Life: Assessment, Analysis and Interpretation*. New York: Wiley; 2001.
- Harper DC, Richman LC. Personality profiles of physically impaired adolescents. *J Clin Psychol*. 1978;34:636-642.
- Heller A, Rafman S, Zvagulis I, Pless IB. Birth defects and psychosocial adjustment. *Am J Dis Child*. 1985;139:257-263.
- Heller A, Tidmarsh W, Pless IB. The psychosocial functioning of young adults born with cleft lip or palate. *Clin Pediatr*. 1981;20:459-465.
- Hofstra MB, Van Der Ende J, Verhulst FC. Adolescents' self-reported problems as predictors of psychopathology in adulthood: 10-year follow up study. *Br J Psychiatry*. 2001;179:203-209.
- 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.
- Millard T, Richman LC. Different cleft conditions, facial appearance, and speech: relationship to psychological variables. *Cleft Palate Craniofac J*. 2001;38:68-75.
- Najman JM, Williams GM, Nikles J, Spence S, Bor W, O'Callaghan M, Le Brocq R, Andersen MJ, Shuttlewood GJ. Bias influencing maternal reports of child behaviour and emotional state. *Soc Psychiatry Psychiatr Epidemiol*. 2001;36:186-194.
- Noar JH. Questionnaire survey of attitudes and concerns of patients with cleft lip and palate and their parents. *Cleft Palate Craniofac J*. 1991;28:279-284.
- Noar JH. A questionnaire survey of attitudes and concerns of three professional groups involved in the cleft palate team. *Cleft Palate Craniofac J*. 1992;29:92-95.
- Richman LC. Behavior and achievement of cleft palate children. *Cleft Palate J*. 1976;13:4-10.
- Richman LC. Parents and teachers: differing views of behavior of cleft palate children. *Cleft Palate J*. 1978;15:360-364.
- Richman LC. Facial and speech relationships to behavior of children with clefts across three age levels. *Cleft Palate Craniofac J*. 1997;34:390-395.
- Richman LC, Millard T. Brief report: cleft lip and palate: longitudinal behavior and relationships of cleft conditions to behavior and achievement. *J Pediatr Psychol*. 1997;22:487-494.
- Schneiderman CR, Auer KE. The behavior of the child with cleft lip and palate as perceived by parents and teachers. *Cleft Palate J*. 1984;21:224-228.
- Slifer KJ, Amari A, Diver T, Hilley L, Kane A, McDonnell S. Self-concept and satisfaction with physical appearance in youth with and without oral clefts. *Child Health Care*. 2003;2:81-101.
- Speltz ML, Morton K, Goodell EW, Clarren SK. Psychological functioning of children with craniofacial anomalies and their mothers: follow-up from late infancy to school entry. *Cleft Palate Craniofac J*. 1993;30:482-489.
- Thomas PT, Turner SR, Rumsey N, Dowell T, Sandy JR. Satisfaction with facial appearance among subjects affected by a cleft. *Cleft Palate Craniofac J*. 1997;34:226-231.
- Tobiasen JM, Hiebert JM. Parents' tolerance for the conduct problems of the child with cleft lip and palate. *Cleft Palate J*. 1984;21:82-85.
- Turner SR, Thomas PWN, Dowell T, Rumsey N, Sandy JR. Psychological outcomes amongst cleft patients and their families. *Br J Plast Surg*. 1997;50:1-9.