

Sociological Aspects of Cleft Palate Adults: III Vocational and Economic Aspects¹

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This paper, the third in a series on adult social functioning (7, 8) assesses the vocational and economic attainment and aspirations of adult cleft subjects. These factors are important in determining the ability of the individual to secure rewards from his social system and as criteria by which adults in our society are evaluated. Our goal in assessing these vocational and economic aspects was to determine the degree of independence achieved from any limitations which might be associated with having a cleft. Results of the study assess social class position, generational trend, employment stability, job security, job suitability and satisfaction, occupational aspiration, and income aspiration.

A self administered questionnaire was used in data collection.² The vocational and economic status of 196 cleft subjects, 190 of their siblings and 209 nationally drawn random controls,³ between ages of 24 and 54, were compared for levels of achievement.

A review of the literature on the social functioning of adults in the areas of vocational and economic attainment is marked by incompleteness. Van Demark & Van Demark (15) concluded that it appeared that having a cleft did not influence the selection of employment. The study by Crocker, Clifford & Pope (2) reported no significant difference among cleft types as to the number of jobs held at the time of testing. The authors concluded that there was no significant difference in socioeconomic status by either cleft type or sex. McWilliams & Paradise (5) found no significant difference

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This study was supported by PHS Research Grant DE-02172, National Institute of Dental Research.

¹ The authors wish to express their appreciation for the assistance of Kitty Heiser-man for the preparation of this study.

² The authors would be pleased to supply a copy of the survey questionnaire upon request.

³ For a detailed description of research population, sample selection, controls, and methodology refer to Sociological Aspects of Cleft Palate Adults: I Marriage. John P. Peter & Rosalie R. Chinsky, *Cleft Palate Journal*, 11: 295-309, July, 1974.

between occupational levels of the adult cleft palate subjects, their nearest-age siblings and their fathers. The three subject groups tended to fall in the lower socioeconomic classes. The authors concluded that, while cleft subjects and their siblings were significantly superior educationally to their parents, there was no significant upward mobility in occupation.

Methodology

The socioeconomic scales of the U.S. Census⁴ were selected for the comparison of cleft, sibling and random control groups. This is the most frequently cited scale in sociological literature occurring in ninety-one percent of the references. The scale utilizes three factors (occupation, education and income) to arrive at a combined index of social position. Characteristics of the population are divided into twelve classes of socioeconomic scores from zero to one-hundred. All classes have a range of ten except those between twenty and twenty-nine and seventy and seventy-nine where the range is five. The variations in the widths of the ranges also makes it possible for classes to be divided into a four part scale. Each of the three factors in the index can be scaled separately by item to provide a basis for comparison of subjects. This scale is most useful for this type of study in that it enables comparison of populations from different areas and population subgroups, and enables the assessment of socioeconomic status as a control in studying other relationships.

Results

SOCIAL CLASS POSITION. The mean socioeconomic status (SDS) scores were 66.25, 70.60 and 66.84 for clefts, siblings and random controls respectively. The SES scores of the three subject groups fell in classes eight and nine on the scale in which the highest occupational, educational and income levels are at twelve. There was no significant difference in SES between clefts and random controls, however, siblings were significantly higher than either clefts or random controls with *t*'s at the .05 level. SDS scores by cleft type did not vary significantly from control groups.

Using the U.S. Census Index of Occupation, subjects *occupational status* scored at 63, 64 and 63 for clefts, siblings and random controls respectively, indicating near unity in occupational position for the three groups. Analysis by cleft type and sex also failed to yield significant *t*'s. Of the three factors of the scale, subject groups varied least in the area of employment. In addition, a comparison of subjects who had attended or graduated from college did not provide significant variability of employment scores for the three groups.

Clefts, siblings and random control subjects did not vary significantly in *educational status*, scoring at 62, 65 and 64 respectively on the U.S. Census

⁴ U.S. Census methodology was used throughout this study for determining socioeconomic class and in survey design. The methodology is presented in the Census Working Papers, particularly No. 15, PC(2)-5C.

Index of Education (8). Analysis by sex and cleft type did not reveal significant variation.

The *income status* of the *heads of households* (chief income recipient) for the three groups was classified on the U.S. Census Index of Income with means for clefts, siblings, and random controls at 74, 83, and 74 respectively. Cleft subjects, as a group, did not vary significantly from random control subjects either by sex or cleft type. Siblings, however, scored significantly higher than cleft subjects ($t = 3.90, > .001$). The comparison of clefts by sex and cleft type with siblings indicated that cleft palate only (CPO) females, cleft lip and palate (CLP) females and cleft palate only (CPO) males varied significantly from siblings ($t = > .02$). No significant difference occurred in the comparison of CLP males with sibling males.

In addition, the authors devised a scale using intervals of \$2000 to determine differences in *gross family income*. On this scale, cleft subjects had significantly lower income than did siblings ($D = .1344, \chi^2 = 6.17, > .02$) and random controls ($D = .1071, \chi^2 = 4.32, > .05$).

In analysis by sex and cleft type, cleft subgroups had significantly lower incomes. Exceptions to this finding occurred in the CPO female group when compared with random controls and the CLP male group when compared with siblings and random controls; these differences failed to meet tests of significance.

GENERATIONAL TREND. In order to determine if cleft subjects followed the usual patterns of upward social mobility between generations, a comparison of the employment levels of cleft males with that of their fathers was made. The difference between these levels was significant ($t = 3, > .001$). The sibling and random control groups also were significantly upwardly mobile from the levels of their fathers ($t = 4.43, > .001$). An exception to this finding occurred in the CPO male subgroup where the subjects demonstrated upward mobility from their fathers' occupational level, but the differences failed to meet tests of significance (see Table 1).

EMPLOYMENT STABILITY. Data on a fifteen year history of employment was compared for the three subject groups. There was no significant difference between groups with regard to longest continuous employment in one job as compared with length of time in the work force. During this fifteen year period, there was no significant difference between the three subject groups with regard to mean number of jobs held. The only exception occurred in the CPO male subgroup; random control males were more stably employed ($t = 2.08, > .05$).

Periods of unemployment occurred in each of the three groups. However, cleft subjects were unemployed more frequently and for greater durations of time than random control subjects ($\chi^2 = 6.33, > .02$). In an analysis of subgroups, female cleft subjects experienced the most unemployment. With the exception of the CPO male subgroup, cleft subjects were not unemployed significantly more often than their siblings.

JOB SECURITY. Subjects were asked to rate how secure they considered

TABLE 1. Gross family income: Comparison of subject groups' gross family income using the Kolmogorov-Smirnov Test.

<i>subjects compared</i>	<i>no. of subj.</i>	<i>D-value</i>	χ^2
1. Clefts to controls			
Clefts	174		
Sibling controls	169	0.1344	6.17**
Random controls	208	0.1071	4.32*
2. Clefts to controls by sex			
a. Cleft males	95		
Sibling control males	69	0.1060	1.79
Random control males	89	0.1075	2.11
b. Cleft females	79		
Sibling control females	100	0.2116	7.89**
Random control females	119	0.1457	4.03*
3. Clefts to controls by sex and type			
a. CLP	117		
CPO	57	0.1408	3.04
b. CLP males	74		
Sibling control males	69	0.0932	1.23
Random control males	89	0.1280	2.63
c. CPO males	21		
Sibling control males	69	0.2775	4.96*
Random control males	89	0.2092	2.97
d. CLP females	43		
Sibling control females	100	0.1954	4.58*
Random control females	119	0.1675	3.54
e. CPO females	36		
Sibling control females	100	0.2309	5.64**
Random control females	119	0.1289	1.84

* Significant at the .05 level.

** Significant at the .02 level.

their jobs. Sibling and random control subjects more frequently than cleft subjects reported their jobs to be either "very secure" or "quite secure—more secure than insecure". Using the Kolmogorov-Smirnov Test, this comparison yielded a $D = .1521$, $\chi^2 = 6.12$, $> .02$ for clefts to siblings and a D

TABLE 2. Generational trend: Comparison of occupational level of subject groups with occupational level of their fathers.

<i>subject groups</i>	<i>mean occup. score for subject group</i>	<i>mean occup. score for fathers of subject group</i>	<i>t-score</i>
Cleft males	64.66	52.42	3.43*
CLP males	65.80	51.06	3.62*
CPO males	62.37	56.90	0.71
Sibling control males	65.85	47.97	4.43*
Random control males	64.38	45.25	4.43*

* Significant at the .001 level.

= .1207, $\chi^2 = 4.47$, $> .05$ for clefts to controls. Analysis of subgroups, by sex and cleft type, yielded the highest levels of significance in the comparison of CLP males with sibling males ($D = .2424$, $\chi^2 = 7.92$, $> .01$). CPO males were also more insecure at the .05 level. None of the female subgroups indicated significant job insecurity. The subjects' job security was also rated by their spouses. No significant differences occurred in the ratings by subjects and their spouses.

JOB SUITABILITY. Subjects were asked to rate their present job as to how well it used and demonstrated their abilities. Ratings of respondents tended toward the high end of the scale indicating "very well suited to abilities" or "quite well suited to abilities". Although siblings reported higher levels of job suitability than did cleft subjects, the differences were not significant. However, the same comparison of cleft subjects with random controls was significant at the .05 level. Of the cleft subgroups, CLP males considered their jobs least suited to their abilities. Ratings of subjects job suitability by spouses yielded no significant differences among the three groups.

JOB SATISFACTION. In the area of job satisfaction, subjects rated their present job on a five point scale ranging from "like very much" to "strongly dislike". Responses for all groups tended to fall in the upper end of the scale indicating high satisfaction. Differences in the ratings of the three groups were not significant. Within the cleft male subgroup, CPO male subjects reported significantly higher levels of job satisfaction than did CLP males ($D = .2500$, $\chi^2 = 3.89$, $> .05$).

JOB ASPIRATION. Subjects indicated their level of job aspiration on a range of choice forming a seven point scale. While the three groups tended to indicate high levels of job aspiration, cleft subjects rated highest. Cleft subjects had significantly higher levels of aspiration than did random controls ($\chi^2 = 4.06$, $> .05$). More frequently than control groups, cleft subjects preferred to take a higher position at higher pay.

INCOME ASPIRATION. Subject groups registered their desire for increased family income on a five point scale. The scale was graduated from "no increase" to an increase of "\$100 per week". Although clefts had the lowest median income, their aspiration level was lowest in terms of the amount of desired increase in income. Siblings, who had the highest median income, also had relatively lower income aspiration. Yet, while random controls had relatively low median income, they aspired to the highest income levels. In the comparison of clefts with random controls the later had significantly higher income aspiration ($D = .1513$, $\chi^2 = 8.79$, $> .01$).

Discussion

The social class position of cleft subjects, that is, their ranking on the combined SES index is slightly lower than that of the control groups. This difference becomes substantive in the area of income rankings. We noted earlier that clefts' income, when scored for heads of households, was significantly lower than that of siblings while only slightly lower than random controls. As expected, single subjects in each group had significantly lower

incomes than married subjects, however, even the higher proportion of single subjects in the cleft sample did not fully account for the lower income of the total cleft group. A comparison of incomes for married cleft subjects with control groups also yielded a significant difference.

Both with regard to gross family income and income for heads of households, one would have expected cleft subjects to have income levels comparable to that of their siblings. However, the income of cleft subjects was significantly lower than that of either of the control groups.

The assessment of aspects of employment lead to these tentative observations. CLP subjects, particularly the male group, tended to be more anxious about job security even though the CPO group was more frequently unemployed. The CLP group also tended to think that their job was least suited to their abilities and were least satisfied with present employment. Even though CLP subjects had slightly higher incomes than CPO subjects, negative attitudes were more frequent in the CLP group. While we cannot assess the levels of anxiety or insecurity experienced by the CLP group, these findings are not so widespread that they may be considered characteristic.

High levels of significance were found in the comparison of the occupational mobility of cleft, sibling and random control subjects over the levels achieved by their fathers. For purposes of methodological comparison, the Hollingshead Occupational Index was also scored (3). On this scale, results indicated no significant difference between clefts, siblings and their fathers, nor was there any difference between random control subjects and their fathers. Without discussing relative merits of the over fifty sociometric scales and indexes (1, 11), including their usefulness as predictors of class behavior, attitudes, or their rankings of social class position, we must conclude that the use of the Hollingshead Index, to determine generational trend, must be rejected on methodological grounds as contributing to a Type II error. While all population definition for samples drawn in the study of cleft palate subjects is limited by the methodology at hand, care must be exercised in the selection of appropriate measures. It is doubtful, for example, that samples from different populations will be seen to vary on indexes designed to place up to 80 % of a population in the lower classes or on indexes which do not permit the measurement of differences across class lines.

Summary

Vocational and economic aspects of social functioning were evaluated for 196 adult cleft subjects, their 190 siblings and 209 random controls. Results indicated that cleft adults functioned within normal limits with regard to employment. However, levels of income were substantively lower than control groups. Cleft subjects compare favorably with their siblings and random

controls in occupational mobility over the levels attained by their fathers. It would appear that cleft subjects experience some limitation in their ability to secure vocational and economic rewards from society.

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