# Educational, Occupational, and Marital Status of Cleft Palate Adults

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## Introduction

The goal of habilitative measures for cleft palate patients is to maximize the individual's ability to function in society so that he can realize his full potential. There is currently little direct information to show how well this goal is being achieved. Demb and Ruess (7) investigated the high school drop-out rate for cleft palate patients and their normal siblings. They found that 42 per cent of the siblings as opposed to 25 per cent of the cleft palate subjects were high school drop-outs. In their opinion, there was a similarity between the educational levels of the cleft palate patients and their siblings which suggested that "family patterns form the primary basis for whether or not a cleft palate child will ultimately complete high school rather than the fact that he has a cleft palate."

In another project, Ruess (15) studied 49 cleft children between the ages of seven and 12 and their 49 nearest-age siblings. The cleft children were significantly lower in verbal and full-scale intelligence quotients than were their siblings, but there was no difference in performance intelligence quotients. The groups were similar in reading and spelling skills, figure drawings, and school progress. This study suggests that children with clefts may experience some difficulty with verbal functioning, an inference which has been supported by other studies (4, 12, 14, 16, 18, 19, 20). McWilliams and Musgrave (11), however, failed to find differences between performance and verbal I.Q.'s in their population of cleft children.

Studies of the psychosocial status of children with clefts also reflect variation in results. Many investigators (3, 5, 13, 17, 23) have failed to support the contention that children with clefts differ from their peers in social adjustment. Other writers (8, 9, 18, 21, 22) have suggested the possibility that children with clefts may not be as successful socially as are children who do not have such handicapping conditions.

In summary, the picture relative to the ability of cleft individuals to get along in the world is confusing and generally unclear. While many

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clinicians feel that social problems exist, the available literature is often not supportive of this point of view, and there is little evidence about life adjustment patterns in adults with clefts.

THE PRESENT STUDY. This study was designed to look at social adjustment of subjects with clefts from a behavioral point of view. Three basic questions were asked:

How do cleft palate subjects compare (1) educationally with their mothers, fathers, and nearest-age siblings; (2) occupationally with their fathers and nearest-age siblings; and (3) maritally with their nearest-age siblings?

SUBJECTS. The subjects for the study were 115 patients who had been treated at the University of Pittsburgh Cleft Palate Center. Their birthdays fell between 1932 and 1952 so that the completion of formal education probably would have occurred by the time of the study except for some seeking advanced training. The ages ranged from 18 to 38 with a mean of 24. There were 71 males and 44 females.

These subjects had a total of 97 siblings. The ages of the 56 males and 41 females ranged from 18 to 45 with a mean of 27. There were 45 pairs of male subject-male sibling, 11 pairs of male subject-female sibling, 30 pairs of female subject-female sibling, and 11 pairs of female subject-male sibling.

Of the 115 subjects, there were 10 only children, 23 oldest children, 50 middle children, and 32 youngest children. When the categories of only child and youngest child are combined, we find that 42, or 37 per cent, of the cleft subjects represented the *last* child born in the family.

PROCEDURE. Telephone interviews were conducted with parents using a standard introduction and questionnaire. At the end of the structured portion of the interview, informants were invited to discuss any matters of concern to them regarding the cleft palate patient. In 103 cases, the informant was the mother, and in 12 cases the informant was the father. The interview sought to establish information regarding:

1. Family composition . . . members, ages, sex

2. Educational level achieved by family members

3. Occupational level reached by family members

4. Marital status of cleft palate patient and nearest-age sibling

The Hollingshead and Redlich Occupational Scale (10) was used to classify occupations. This is a seven-point scale ranging from 1 (executives and proprietors of large concerns and major professionals) to 7 (unskilled workers). To this, an eighth rank was added to include those who were on welfare or unemployed. The Hollingshead and Redlich Educational Scale (10) was used to establish educational achievement. This is also a seven-point scale ranging from 1 (graduate professional training) to 7 (less than seven years of schooling).

## Results

EDUCATION. Both cleft palate subjects and their siblings achieved a significantly higher level of education than did either their fathers or mothers (at the .01 level of confidence as assessed by the sign test). However, there were no significant differences between the educational levels of the cleft palate patients and their nearest-age siblings. Both parents had mean educational levels of 5 (completed 10th or 11th grade) as compared to means of 4 (high school graduation) for both their cleft and non-cleft children. Only 97 subjects participated in this group since ten subjects were only children and eight subjects did not have siblings old enough to be included in the study.

In an effort to analyze these data further, the data were examined in yet another way. Twenty-six, or 23 per cent, of the cleft subjects dropped out of high school prior to completion. This compares favorably with the 25 per cent drop-out rate reported by Demb and Ruess (7). The influence of family pattern is supported here since 21, or 81 per cent, of the cleft drop-outs had fathers and mothers who had also left high school prior to completion. However, only 13 per cent of the sibling group failed to complete high school. Twenty-four of the 26 cleft palate high school drop-outs had siblings. Only 10 of the 24 dropped out of high school even though 75 per cent of their fathers and 83 per cent of their mothers had not complete high school. While family patterns remain clear, the drop-out rate for the non-cleft sibling group was lower than it was for the cleft subjects. A chi square of 4.50, significant at the 5 per cent level of confidence, indicates that cleft subjects dropped out of school more frequently than did their siblings.

Twenty-one of the 97 cleft patients, 22 per cent, had had at least one year of college training; and this was true for 24, or 25 per cent, of their siblings. Eight of the cleft subjects and nine of their nearest-age siblings were college graduates. (Neither of these comparisons yielded statistically significant differences when analyzed by chi square).

These data suggest that, in families which do not have a pattern of continuing education, a significantly larger number of cleft palate patients drop out of high school than do their nearest-age siblings. However, in those families which do have a tradition for higher education, the cleft palate patient is as likely to attend or to graduate from college as is his nearest-age sibling. These data further suggest that the fact of the cleft may be more influential in determining academic accomplishments at lower educational levels than at higher levels.

OCCUPATION. Again, there were no overall significant differences (as evaluated by the sign test) between the occupational levels of the cleft palate patients, their fathers, and their nearest-age siblings. The fathers, their cleft offspring, and their nearest-age sibling tended to be similar in occupational level with means falling at 5.59, 5.65, and 5.1 respectively. These ratings are indicative of occupational levels falling between level 5 (skilled workers) and level 6 (semi-skilled workers).

MARITAL STATUS. Of the 115 cleft palate patients, 46, or 40 per cent, were or had been married. Of the 97 nearest-age siblings, 70, or 72 per cent, were or had been married. Chi-square yielded a value of 28.75, significant at the .01 level of confidence, indicating that a significantly larger number of cleft palate patients remained single than did their nearest-age siblings.

The age range of the cleft subjects who were or had been married was from 20 to 38 years, and the average was 27 years as opposed to a mean of 24 years for the entire cleft population. The mean for those who had not been married was 21.8 years. The age range for the nearest-age siblings who were or had been married was from 19 years to 45 years, and the average age was 27.6 years as compared to a mean age for the entire sibling group of 27 years and a mean age of 22.4 years for the 27 siblings who remained unmarried.

# Discussion

There was no significant difference between the educational achievement of the cleft palate patient and his nearest-age sibling. However, both differ significantly from their fathers and mothers with the children achieving a more advanced educational status than the parents. This is an expected finding and is in accordance with what we know of family patterns of education in this country. However, this difference in education is not reflected in a significant difference in occupational levels between the cleft palate patients, their nearest-age siblings, and their fathers. This discrepancy is interesting since education and occupation are commonly thought to be related so that a rise in educational status is associated with a rise in occupational status. Davidson and Anderson (6) report, "A coefficient of correlation of .60 was found between schooling and occupational status, indicating a considerable measure of correspondence between the two." Benson (1) states "... The quality of education a person receives is setting ever closer bounds on his occupational potential." Thus it may be reasonable to wonder either why this relationship was not more marked in the families in this study or if such relationships may be changing in today's society and should be reassessed.

Education, given a certain minimum academic and financial position, is probably relatively under the control of the individual. That may not be the case with occupation, where the individual may be more dependent upon other people. An investigation of the societal aspects of rehabilitation might yield useful information.

While the above speculations may offer some explanation for the failure of the cleft palate patient to achieve an occupational level higher than his father's in the face of a higher educational level, it does not explain the failure of the nearest-age sibling to do so. The only insight that might be offered is one that arose from discussions with some of the informants, generally the mothers. These discussions occurred at the end of the structured portion of the interview, when the interviewer said, "I have asked you a lot of questions. Are there any questions that you would like to ask me?" At this point, numerous mothers proceeded to discuss various past and present problems associated with having a cleft palate child. A number of these mothers expressed the fear that the care, time, and energy which they had given to their cleft child had resulted in the relative neglect of their other children. It may be possible that the nearest-age sibling might have felt the effect of any neglect most seriously and that he did not develop sufficient self-esteem to allow him to reap the rewards of his education.

However, Berg (2) has recently discussed the numerous factors which combine to determine occupational status. Among these are the influence of family and associates, personal ambition, native intelligence, and qualities of character and physique. With such a cluster of influences, it might be wise to deal with the relationship between education and occupation with considerable caution, particularly in view of the current trend toward high school graduation.

Differences in the educational levels attained by cleft palate patients and their nearest-age siblings appear to be at the lower end of the scale. More cleft palate patients dropped out of school than did their nearestage siblings, while there was no significant difference between the groups at the college level. One might speculate that the differences are associated with family value systems relating to education and that, when these family pressures toward higher education do not prevail, the tendency is for more cleft palate patients to drop out of school.

This may have important implications for clinical management. Perhaps family counseling should be an integral part of the work done in cleft palate programs. It might aid cleft individuals to realize their potentials and might help parents and siblings in their accommodation to the special problems which arise when a handicapped child is in the family.

The investigation of marital status revealed that a significantly larger number of cleft palate patients remained single than did their nearest-age siblings. Only 40 per cent of the cleft subjects were or had been married, whereas 72 per cent of the nearest-age siblings had been. While this may represent personal choice rather than a clearly defined "problem," the fact is that the decision to remain single was made more often by cleft subjects than it was by their siblings. In the eventual determination of who marries and who does not, there are those factors which are external to the person, such as the emphasis our culture places on the desirability of attractiveness in a marriage partner. It is questionable whether workers

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in the area of cleft palate can significantly modify this societal pressure. However, there may be other compensating factors which reside within the person and have to do with such things as self-image, competency, and self-esteem. Again, one may be inclined to consider the potential values of counseling and to recognize the need for more studies which look at what people do rather than at what they say about themselves and their lives.

It is to be emphasized that this study is concerned with the educational, occupational, and marital status of adults who had their major care from 20 to 40 years ago. It is possible that present-day babies will grow up to show fewer differences when compared to their peers. However, information like this cannot be ignored as we design and improve our programs of care. We should be concerned with the life outcome for these patients and be prepared to recognize their needs early enough to offer preventative intervention when it is indicated.

## Summary

The purpose of this study was to investigate how cleft palate subjects compare educationally and occupationally with their parents and nearest-age siblings and maritally with their nearest-age siblings.

One hundred fifteen cleft palate subjects and members of their immediate families were evaluated using the Hollingshead and Redlich Educational and Occupational Scales. Both cleft and non-cleft subjects were significantly superior educationally to their parents, but they were similar occupationally. There were no overall differences in educational achievement between the cleft subjects and their non-cleft siblings. However, when cleft palate subjects dropped out of high school, they did so with significantly greater frequency than did their non-cleft siblings. The study of marital status revealed that a significantly larger number of cleft palate patients remained single than did their nearest-age siblings.

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