

Self Identified Personality Patterns of Children with Facial or Orthopedic Disfigurement

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This study compared *personality* characteristics of children with cleft lip and palate to another group of children with different *observable physical impairment* (orthopedic disability) and speech difficulties. It was hypothesized that different types of observable physical stigmata may result in different personality adaptations.

Forty-five children from each of two groups (25 males and 20 females) were matched for sex, age, and intelligence. They were compared using the *Missouri Children's Picture Series*, a non-verbal personality test, on the following dimensions: Conformity, Masculinity/Femininity, Maturity, Aggression, Inhibition, Activity Level, Sleep Disturbance and Somatization. The results indicate that males with cleft lip and palate are significantly higher on Maturity and Inhibition while Orthopedically Disabled males are higher on Aggression, Activity Level, and Somatization. Cleft lip and palate females are significantly higher on Maturity and Inhibition while Orthopedically Disabled females are higher on Masculinity. The results indicate differential personality adaptations in the two different types of observable physical impairments. Results are discussed in terms of their relationship to selected *psychosocial* variables.

Introduction

The study of the effects of observable physical disability on psychosocial development raises questions regarding the relative importance of type of disability as opposed to the fact of disability. Since there are minimal data to support disability-specific personality types (McDaniel, 1969; Schontz, 1975), it may be that the fact of having an observable disability is more important than the type of disability *per se* (Barker et al., 1953; Meyerson, 1955; Wright, 1964). One approach to investigating this issue would be to compare different, yet observable, disability subtypes.

A series of studies which investigated behavioral characteristics of cleft lip and palate and orthopedically impaired children have

identified inhibition as a common behavioral characteristic (Richman, 1976; Richman and Harper, 1978; Harper, Richman and Snider, unpublished manuscript). These studies indicated that both children with cleft lip and palate and those with orthopedic impairment displayed greater behavioral inhibition than did controls and that they were similar to each other in degree of inhibition. These previously mentioned studies utilized teachers' reports based on behavior observations. However, similar behavioral patterns may be displayed by children with different underlying personality adaptations.

There are few studies examining self-identified personality patterns in disabled children. Although methods of personality assessment using behavioral ratings have provided relevant information, there is a need for efficient, easily administered, non-verbal methods of personality assessment, especially when examining children with speech impairments. Evaluation of personality in children based on self report, as opposed to behavioral reports of parents or teachers, allow for the expression of subjective concerns. The evaluation of self-reported concerns may provide information

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regarding underlying personality adaptations influencing behavioral patterns of disabled children. Furthermore, administration of a non-verbal personality test avoids problems such as deficient verbal skills or anxiety interfering with verbal disclosure. The *Missouri Children's Picture Series* (MCPS) a non-verbal test of personality, allows personality assessment based on self-reported activity interests of children (Sines, Pauker, and Sines, 1971). The MCPS is based on the assumption that differences in a child's self-reported, preferred daily activities, e.g., helping with household chores, social interaction with peers, school related tasks, are related to variables that may be important to the identification of personality characteristics (Sines et al., 1971).

The purpose of this study was to determine if there are personality differences as measured by the MCPS between two groups of children, one with cleft lip and palate and one with orthopedic impairment.

Method

SUBJECTS

Cleft Group. The group with clefts consisted of 25 males with a mean age of nine years, eight months, ($SD = 2.6$ years) and a mean IQ of 97.56 ($SD = 11.59$) and 20 females with a mean age of eight years, five months, ($SD = 2.4$ years) and a mean IQ of 100.80 ($SD = 10.32$). All children had clefts of the lip and palate. The cleft sample exhibited mild to moderate degrees of speech impairment based on a speech clinician's rating of connected speech, and were without significant hearing difficulties. All youngsters with clefts were receiving on-going care in an interdisciplinary cleft palate program. This sample of children with clefts exhibited a greater degree of facial disfigurement than is typically encountered in the general cleft population. All of the cleft children with clefts had been rated by three independent observers on a five-point rating scale ranging from normal appearance to severe facial disfigurement with five representing the most severe rating. The children selected for this study were chosen on the basis of having ratings in the moderate-to-severe range to assure the observability of their facial disfigurement. All subjects were selected from those available in the cleft palate research project, University of Iowa Hospitals.

Orthopedic Group. The orthopedic group consisted of 25 males with a mean age of nine years, nine months, ($SD = 2.6$ years) and a mean IQ of 93.64 ($SD = 11.30$) and 20 females with a mean age of eight years, five months, ($SD = 2.6$ years) and a mean IQ of 98.00 ($SD = 9.99$). All subjects were evaluated at the Children's Rehabilitation Unit, University of Iowa Hospital School. This group included children with a variety of congenital and traumatic orthopedic problems including cerebral palsy, meningomyelocele, and post-traumatic para-quadruplegia. While all of the subjects had observable physical impairment, these children were generally of average ability and only mildly to moderately impaired physically. They were able to function in their regular classroom settings. Thus, they represented a less handicapped and higher functioning group of children than is frequently found in association with these diagnoses. They were semi-ambulatory, required assistive devices, and were partially dependent in self-care skills. While many of these children exhibited speech difficulties, speech clinicians judged them adequately intelligible for classroom participation.

INSTRUMENT

The MCPS (Sines, Pauker and Sines, 1971) is an objective, nonverbal personality test which consists of 238 line drawings with children engaged in a variety of activities. The child is asked to group the pictures according to whether they are "fun" or "not fun." The responses are scored on eight scales for which normative data are available for males and for females according to age (ages 5 to 16). The eight MCPS scales and their descriptions are presented in Figure 1. Split-half reliability of the eight scores range from .33 to .91 and test-retest reliability coefficients range from .32 to .71. While some of these reliability coefficients appear relatively low, they are consistent with most other personality instruments available for young children.

PROCEDURE

All children were given the MCPS during routine evaluation at the University of Iowa Hospitals. Intellectual data represented the most current individually administered intelligence test, either the WISC or the Stanford-

Figure 1. Scales and Descriptions of the Missouri Children's Picture Series.

<i>Scales</i>	<i>Description</i>
1. Conformity	Items sorted in the same direction by at least 80% of the normative sample.
2. Masculinity-Femininity	Items discriminating at the .01 level between males and females of all ages.
3. Maturity	Items discriminating at the .01 level between 7 and 14 year olds.
4. Aggression	Items that identified a criterion group of aggressive children.
5. Inhibition	Items that identified a criterion group of inhibited children.
6. Activity Level	Items that identified a criterion group of hyperactive children.
7. Sleep Disturbance	Items that identified a criterion group of children described by parents as having disturbed sleep.
8. Somatization	Items that identified a criterion group of children with somatic complaints.

Note: Scale 4-8 are based on age proportional comparisons between criterion and normative groups across the age range of the MCPS (ages 5-16).

Binet, L-M. Subjects from the cleft group were randomly selected from those individuals receiving on-going care. Each child with orthopedic impairment was individually matched with a child with a cleft on the basis of sex, age, grade, and intelligence. The criteria for matching included: age within six months, same grade in school, and intelligence within five IQ points on the WISC Full Scale.

The Wilcoxon Matched-Pairs Signed-Ranks test was utilized for the data analyses (Siegel, 1956). The analyses evaluated differences between the groups for each scale of the MCPS. Since previous research on the MCPS has identified sex differences, the data were analyzed separately for each sex. The data did not meet assumptions for analysis of variance. Therefore, a non-parametric statistic was selected.

Results

The results indicate that males with cleft lip and palate were significantly higher on Maturity ($p < .01$) and Inhibition ($p < .05$) scales while males with orthopedic disability were significantly higher on Aggression ($p < .01$), Activity Level ($p < .01$) and Somatization ($p < .05$) scales. The test-retest reliability values for these scales are as follows: Maturity, .71; Inhibition, .61; Aggression, .45; Activity, .67; and Somatization, .51.

Females with cleft lip and palate were also significantly higher on Maturity ($p < .01$)

TABLE 1. Comparison of Male Cleft and Orthopedic Group Scores on the Missouri Children's Picture Series.

<i>Scale</i>	<i>Group</i>	<i>T^a</i>
Cleft (C)—Orthopedic (O)		
1. Conformity	N.S.	146.5
2. Masculinity/Femininity	N.S.	97.0
3. Maturity	C > O	21.5**
4. Aggression	C < O	61.5**
5. Inhibition	C > O	65.5*
6. Activity Level	C < O	58.0**
7. Sleep Disturbance	N.S.	89.0
8. Somatization	C < O	68.0*

* $p < .05$

** $p < .01$

^a Wilcoxon Matched-Pairs Signed-Ranks statistic (Siegel, 1956)

and Inhibition ($p < .05$) scales, while females with orthopedic disability were significantly higher on the Masculinity/Femininity scale ($p < .01$). The test-retest reliabilities for these scales are as follows: Maturity, .71; Inhibition, .56; and Masculinity/Femininity, .57. The female comparisons are presented in Table 2.

Discussion

Previous research has documented that children with cleft lip and palate and those with orthopedic impairments display similar characteristics of behavioral inhibition (Richman and Harper, 1978; Harper, Richman and Snider, unpublished manuscript). However, comparisons of self-reported personality characteristics of adolescents with cleft lip and

TABLE 2. Comparison of Female Cleft and Orthopedic Group Scores on the Missouri Children's Picture Series.

Scale	Group	T ^a
Cleft (C)—Orthopedic (O)		
1. Conformity	N.S.	76.0
2. Masculinity/Femininity	C < O	21.0**
3. Maturity	C > O	20.5**
4. Aggression	N.S.	72.5
5. Inhibition	C > O	37.0*
6. Activity Level	N.S.	70.0
7. Sleep Disturbance	N.S.	63.0
8. Somatization	N.S.	64.0

* $p < .05$

** $p < .01$

^a Wilcoxon Matched-Pairs Signed-Ranks statistic (Siegel, 1956)

palate and those with orthopedic impairment demonstrate differential personality adaptations (Harper and Richman, in press). The results of the present study suggest differential self-reported personality characteristics for younger children with cleft palate and orthopedic impairment. While the fact of observable physical disability may result in similar behavioral characteristics (Barker et al., 1953; Meyerson, 1955; Wright, 1964), the present results support the contention that the type of observable disability may produce variations in personality adaptations.

The males with cleft lip and palate had higher scores than the males with orthopedic impairment on Scale 3 (Maturity) and Scale 5 (Inhibition). Males with high scores on Maturity have been rated by others as being academically successful and athletically inclined (Baker, 1968, 1970). High scorers on Inhibition have been identified as displaying shyness, withdrawal, and social inhibition (Owen, 1970). These results suggest that males with cleft lip and palate may experience some discomfort regarding interpersonal relations. While it is possible that males with clefts may compensate for social inhibition by participation in athletic or academic activities as did those in Owen's study, this remains to be documented. The finding of social inhibition for young males with clefts is consistent with the personality characteristics of adolescents with clefts previously identified (Harper and Richman, in press).

Males with orthopedic impairment were higher than the males with cleft on Scales 4 (Aggression), 6 (Activity), and 8 (Somatiza-

tion). The characteristics of Aggression and Activity appear to be inconsistent with previous findings of behavioral inhibition. However, Sines (1970) found that high scorers on the Aggression scale were not rated as behaviorally aggressive. Sine's study documented an increased incidence of neurological impairment, atypical gait, and incoordination for that group. Furthermore, it has been found that high versus low scores on the Activity Scale are associated with no significant differences in such behavior as hyperactivity (White, 1972). The cluster of relatively high scores on Scales 4, 6, and 8 has been found for children rated by teachers as restless, nervous, and unable to tolerate stress (Owen, 1972). Although the personality profiles of males with orthopedic impairment are consistent with Owen's study (1972), independent behavioral data are necessary to support this possibility.

Females with cleft lip and palate were higher than females with orthopedic impairment on Scales 3 (Maturity) and 5 (Inhibition). These relative elevations suggest an early personality adaptation of social reserve similar to the males with cleft. However, personality data on female adolescents with cleft indicate less success in social compensation and greater self-dissatisfaction than is the case for male adolescents with cleft (Harper and Richman, in press). While it appears that, during the elementary years, females with clefts display personality characteristics of social reserve similar to males with clefts, increased concerns regarding appearance during adolescence may also increase feelings of discomfort and self-doubt.

Females with orthopedic impairment had higher scores than females with cleft on Scale 2 (Masculinity/Femininity). This result indicates endorsement of activities typically selected by males. There is no known research on this scale and thus interpretation of this difference remains highly speculative. However, this endorsement may reflect the extreme degree of social alienation which has also been identified in older female adolescents with orthopedic impairment (Harper and Richman, in press).

The results indicate differential patterns of personality adaptation between children with different types of observable disability. Children with cleft lip and palate appear to dis-

play more socially acceptable personality adjustments than children with orthopedic impairment. While the results are consistent with previous findings of inhibition for both groups of children, differential underlying personality adaptations are identifiable at a relatively early age. Whether these self-identified personality differences are related to differential social responses of others, i.e., facial disfigurement versus ambulatory impairment, merits further investigation. The interpretation of these personality differences should be viewed within a context of the groups studied. Based on previous studies (Richman, 1976; Richman and Harper, 1978) of these two groups of children (cleft, orthopedic handicapped), it is likely that, while these results reflect personality adjustment differences between these groups, they are not suggestive of significant psychopathology. Furthermore, the fact that the mean score profiles of the two groups were not elevated significantly above those of the normative sample (Sines, Pauker and Sines, 1971) supports the view that the observed differences reflect the adjustment patterns of the cleft and orthopedic groups rather than extreme personality deviations in either group. Further investigation of self-identified personality differences by degree of observable disability within these groups may provide more subtle information regarding the relationship of observable stigmata and personality adaptation.

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