

31 AN EVALUATION OF THREE MEASURES OF INFANT TEMPERAMENT

Amos S. DeInard, Don Brunnequell, Bonnie Taraldson, Byron Eglund. University of Minnesota, Departments of Psychoeducational Studies and Pediatrics, Box 60, Minneapolis, Minnesota

Despite the interest in characterizing the temperament of newborns, there are a relatively small number of techniques available for assessing temperament. Using three approaches to assess temperament - naturalistic observation in the newborn nursery, the Brazelton Neonatal Behavioral Assessment Scale and Carey's Survey of Temperamental Characteristics, an attempt was made to determine the reliability and the profile of each instrument. One-hundred primiparous mothers and their infants participated in the study. Reliability data from nurses' ratings of infants in the newborn nursery were high and there were no differences in ratings over the five days the infants were in the nursery. A factor analysis of the scale yielded the following factors: I-Alertness-Activity, II-Contentedness-Soothability, III-Mother Interest and Skill, IV-Cuddliness, and V-Ease in Caretaking. Using two examiners and testing at seven and ten days of life, the interrater and test-retest reliabilities of the Brazelton were moderate. The three and six month testing with the Carey also yielded moderate correlations. Comparing components of factors making up the various measures, an alertness, consolability and activity factor seemed to emerge on each instrument. Organization process measured by the Brazelton, including ratings of habituation, excitability, irritability, etc., were related to later evaluation by mood by the Carey.

32 LITHIUM RX OF CHILDHOOD MANIC-DEPRESSIVE DISEASE AND ANTISOCIAL BEHAVIOR DISORDERS. G. Robert DeLong

(Spon. by Daniel C. Shannon), Harvard Medical School, Mass. Gen. Hosp., Depts. of Pediatrics and Neurology, Boston.

Eight children (ages 5-15) with serious behavior disorders responded to lithium carbonate (Li) Rx with dramatic improvement. Aggressive hostile antisocial behavior, and hyperactivity and distractibility, were common to all. All had various Rx over years, including stimulants, tranquilizers, psychotherapy and environmental modification without satisfactory improvement. All were in stable homes (3 adoptive). One group (6 pts.) had cyclic behavior; 5 had family hx. consistent with manic-depressive disease (M-D); 4 met criteria for both mania and depression in childhood (Weinberg & Brumback, Am.J.Dis.Ch. 130:380, 1976). Five had disturbances of vegetative or homeostatic functions (hyperphagia, hyperdipsia, excess sweating, salt craving, sleep disorder, etc.) which improved during Li Rx. Work-up for other causes was negative. The second group (2 pts.) had no cyclic changes, no manic behavior, no vegetative disturbances, and no clear family history of affective disorder. In these, Li was synergistic with stimulants. Li serum levels were maintained in accepted range (0.4-1.0 mEq/L.); no toxicity was seen. Improvement, assessed from function in daily environment, has been maintained 7-25 months (ave. 15 mos.). In 6, Li was discontinued with reversion to previous behavior, which improved after restarting Li. Li Rx produces marked and sustained normalization of behavior in some children with severe disorders of mood and affect. It may help elucidate the relationships between childhood behavior disorders & familial psychiatric disease, esp. M-D and affective disorders.

33 GROWTH AND DEVELOPMENT OF CHILDREN BORN TO WOMEN MAINTAINED ON METHADONE DURING PREGNANCY. Loretta P. Finnegan, Dian S. Reeser, Rosalind Y. Ting, Martin

Rosenzweig, Anne Keller (Spon. by M. Delivoria-Papadopoulos), Thomas Jefferson University, University of Pennsylvania School of Medicine, Dept. of Pediatrics, Philadelphia, Pa.

Eighty-nine infants (S) born to women maintained on methadone during pregnancy have been evaluated periodically since birth to assess any long term effects of methadone on development and physical growth. Using Gesell's Developmental Schedule, 30 S had repeated measures between 23 weeks and 52 months, and 59 S had one measurement between 26 weeks and 41 months. Results show that the score for the first measure of each S ranged between 57 and 121; 43.2% of the scores fell below 100 with 2.3% below 75, 45.5% above 100, and 11.3% were at 100. Fifteen S had 3 to 5 repeated measures between 23 weeks and 37 months with no discernible trend over time. Analyses of height and weight were done for 22 of these infants and a control group (C) (N=18) born in the same nursery as S and followed in the hospital's clinic. The data were put into intervals in weeks: birth; 4-8; 9-13; 14-18; 19-23; 24-28; 29-38. For height, growth curves were parallel suggesting no difference in rate of growth but C was always higher (p<.025). The growth curves for weight were also parallel and there was no significant difference between groups over the study period. In general, the data suggested that infants of women maintained on methadone during pregnancy did not manifest adverse sequelae in regard to growth and development during our study period.

34 WHICH CHILDREN WITH LEUKEMIA DIE AT HOME? Robert P. Fortunato and Diane M. Komp, Dept. Pediat., Univ. Va.

School of Medicine, Charlottesville, Virginia

In our intensive-care oriented society, death at home for the terminally ill is an unlikely event. We reviewed the experiences of 27 children with leukemia for whom further remissions were not anticipated to determine what factors influence the location of the child (home vs. hospital) at the time of death.

Thirteen (44%) children in the group died at home. They did not differ from the children who died in the hospital for the following parameters (p>.1): age, no. of remissions, size of home town, distance from patient's home to Charlottesville, socioeconomic status or requirements for supportive care.

The most common medical problems were fever, bone pain, vomiting, headaches and abdominal pain. Bleeding was an infrequent problem. There was no significant difference in the frequency of any of these symptoms in home versus hospital patients.

The only factor that distinguished the groups was the length of time from diagnosis to death. The median survival for 13 children at home was 32 months compared to 18 months for hospitalized (p<.02).

It is concluded that the location of death for these children is dictated more by personal considerations than medical needs. Although it is not always appropriate, death at home for children with terminal leukemia can be medically and psychologically supported.

35 PHYSICIAN PREVENTABLE NEONATAL PULMONARY DISEASE IN NEW HAMPSHIRE - 1976

Judith E. Frank, George A. Little, (Sponsored by Saul Blatman), (Dartmouth Medical School, Department of Maternal and Child Health, Vt/NH Regional Perinatal Program, Hanover, N.H.).

Physician preventable neonatal pulmonary disease was reviewed in all 250 infants admitted to the Dartmouth-Hitchcock Medical Center in calendar year 1976. Data were obtained from the delivering hospital's perinatal records, the neonatal course, and a monthly transport conference case review.

All cases of Respiratory Distress Syndrome or Meconium Aspiration Syndrome were screened for inadequate fetal maturity or gestational age evaluation prior to delivery. Clinical, x-ray, and laboratory findings were used for diagnosis. All cases this year were transported, not inborn.

Results:	#	% Total Admissions
RDS associated with:		
Elective C-section	12	5%
Induced Labor	5	2
Meconium aspiration with inadequate pre- and postpartum management	7	3
Total	24	9.6%

Cost analysis comparing neonatal intensive care expense versus projected fetal maturity study expense for all New Hampshire pregnancies at risk supports performing the studies. The conclusion that approximately 10% of tertiary neonatal intensive care admissions in New Hampshire can be eliminated through adequate fetal gestational age evaluation is being presented to the New Hampshire Medical Society upon request.

36 EVALUATION OF THE HOME ENVIRONMENT USING A SELF-ADMINISTERED QUESTIONNAIRE. William K. Frankenburg, Esther A. Goldstein and Cynthia Y. Ker. University

of Colorado Medical Center, Dept. of Pediatrics, Denver, Colorado

A study was conducted to develop a brief self-administered questionnaire based on Caldwell's Home Observation for Measures of the Environment (HOME). Previous studies have demonstrated prediction of children's school performance based on home environment (SES) as well as developmental status. The Home Screening Questionnaire (HSQ) could be useful as a screening device for identifying home environments that may be detrimental to early development. Drawing items from two forms of the HOME, two corresponding forms of the HSQ were developed. 180 subjects drawn from private physicians offices (high SES) and public health clinics (low SES) completed the HSQ. Subsequently two examiners conducted Caldwell's interview in each of the subject's homes. Correlations between HOME and HSQ were significant for both Form 0-3 and 3-6, ranging from .42 to .77 (p<.01). Mean scores on the HSQ and HOME were higher in the private sample than in the clinic sample for all age groups. The distribution for the clinic samples, ages 0-3 years, was bi-modal, the lower tail identifying a high risk group for the low SES families. The distribution of scores for the clinic sample was lower than the private sample for both age groups (0-3 and 3-6). Previous studies have shown the Denver Developmental Screening Test (DDST) to have predictive validity for later school performance. The predictive power of the DDST could be increased if used in conjunction with the HSQ, for children under 6, to predict school performance and to identify cases where intervention might improve school performance.