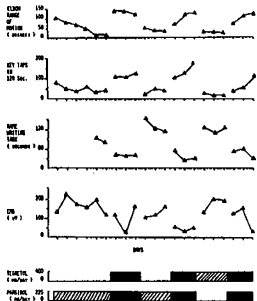


**61** BEHAVIORAL MEDICINE ASSESSMENT IN DYSTONIA MUSCULORUM DEFORMANS. William R. Jankel, Michael J. Kalsner, Renee C. Wachtel, Mark L. Batshaw, Michael F. Cataldo Johns Hopkins Med. Inst. and Kennedy Inst., Depts. of Neurol., Ped., Beh. Psy. Balt. MD

The assessment of movement disorders necessitates the quantification of abnormal findings. The development of behavior analysis techniques offers a methodology for examining movements. The present study is an attempt to apply behavior analysis techniques to the treatment of disorders. Three patients with Dystonia Musculorum Deformans (age range 16-24y) were assessed during treatment with artane (8-15mg/d), pargitol (200-400mg/d) (P), tegrretol (.4-1.5mg/d) (T) or P+T. The results in one patient are shown. Assessment measures including range of motion, finger dexterity, writing skills, and surface EMG suggests the greatest improvement is on a combination of P+T. This approach suggests that assessment of behavioral changes may provide important information upon which to base clinical decisions. Empirical analysis of behaviors represents a methodology by which treatment efficacy may be quantified and clinical impressions substantiated.



**64** NEONATAL ABSTINENCE SYNDROME (NAS) AND INTERACTIVE BEHAVIORS AT 1 AND 30 DAYS OF LIFE. Karol Kaltenbach, Loretta P. Finnegan, Maria Frankenfield, Thomas

Jefferson University Hospital, Dept. of Pediatrics, Philadelphia. Several studies have investigated differences in the behavior of newborns with NAS and non-addicted infants, using the Brazelton Neonatal Behavioral Assessment Scale (BNBAS). However, the most consistent differences found are for those items reflected in the clinical assessment of the abstinence syndrome, i.e. irritability, tremulousness, jerkiness of motor movement and increased muscle tone. In this study 25 infants born to drug dependent women were evaluated. The BNBAS was used but was scored using the a priori cluster method so that the infants' interactive organization could be evaluated. Scores given for Interaction Dimension were: 1=superior; 2=adequate; 3=deficient. At 1 day of age all infants who later would require pharmacotherapy for NAS had deficient interaction scores ( $\bar{x}=3$ ). Infants who never required treatment had a  $\bar{x}$  of 2.1. At 30 days of age, infants who never required treatment had a  $\bar{x}$  of 2.2 and infants who required treatment but were drug free by 30 days had a  $\bar{x}$  of 1.7. Infants still receiving treatment at 30 days had a  $\bar{x}$  of 2.2. There appear to be differences within the latter group. Infants whose mothers rarely came to visit had a  $\bar{x}$  of 2.6 whereas infants whose mothers visited on a regular basis had a  $\bar{x}$  of 1.8. Poor interaction of the infants may have caused avoidance by the mothers or maternal attention may have improved the infants' interaction. These data indicate the possibility that NAS has a deleterious and complex effect on infant-caregiver interaction.

**62** THE EFFECTS OF CHRONIC CHILDHOOD ILLNESS ON THE MOTHER'S PSYCHOLOGICAL ADJUSTMENT. Dorothy J. Jessop and Ruth E. Stein (Spon. by Michael I. Cohen). Albert Einstein College of Medicine, Department of Pediatrics, Bronx, NY

There are conflicting data regarding the impact of chronic childhood illness on the family unit in general and more particularly on the mother's psychological adjustment (MPA). In spite of evidence that the burden of care of the child falls predominantly on the mother, there are few analyses of the effects of the child's illness on mother's mental health using sound measures. Data from a study of 219 inner-city children with chronic illness indicate that there is no relation ( $\tau=b=.01$ ) between the burden of the child's condition as reported by the provider and MPA. There is, however, a significant ( $p<.001$ ) but modest association ( $\tau=b=.21$ ) between the child's functional status and MPA. Additionally the effects of the child's condition are minimized by the presence of various social and demographic characteristics including health insurance, social supports, absence of other stressors, and the presence of more than one adult in the home. The absence of these positive characteristics appears to exacerbate the situation and produce significant and moderately severe mental health deficits for the mother (as high as  $\tau=b=.46$ ). Such analyses can be helpful to clinicians interested in identifying characteristics of families which predict the need for further intervention to maximize the functioning of individual family members and minimize secondary sequelae of chronic illness. The results also suggest kinds of interventions which may be helpful.

**65** SHOULD THE PREMATURE INFANT VISIT THE MOTHER? John Kennell, Marshall Klaus, Roberta O'Bell, Carolyn Rudd, Case Western Reserve U., Rainbow Babies & Childrens Hospital, Dept. of Peds., Cleveland.

As part of the evaluation of a new intervention for parents of prematures, we studied maternal behavior during one-hour visits of the infant to the mother in the first five post partum days. The baby was transported from the NICU to the maternity hospital in an incubator and placed nude next to the mother on her bed under a heat shield. A nurse at the head of the bed observed the status of the infant and recorded the mother's behavior for 15 sec/min. We studied 15 mothers who had healthy prematures who ranged in wt from 1620-2370 gms, G.A. 30-36 weeks.

% time	Touch			Look vocalize	
	Finger contact	Palm contact	Extr. trunk contact	head to baby	Body to baby
1st Visit	41	27	40	38	28
2nd Visit	38	42	32	55	48

The level of maternal behavior was much higher than in a comparison group of mothers (studied previously) who visited their premature infants (in incubators) in the NICU. Those mothers spoke to their babies less and took many visits to change from touching the baby's extremities with their fingertips to palm contact of the head and trunk. There have been no problems with temperature control, apnea or bradycardia, but one infant expired later with Group B strep septicemia. In summary, bringing the premature infant to the mother's bed for 1 hour in the first days of life results in higher levels of maternal behavior that are more typical of the mother of a full-term infant.

**63** METHADONE EXPOSURE IN UTERO: EFFECTS ON INFANT BEHAVIOR. Helen L. Johnson and Tove S. Rosen, Spon. by L. Stanley James, Columbia University College of Physicians and Surgeons, Dept. of Pediatrics, New York

As part of an ongoing longitudinal study of the developmental effects of prenatal methadone exposure, 38 children born to methadone-maintained mothers (M) and 23 matched children but with negative maternal history of drug use (C), received a battery of behavioral assessments at 6 months. No differences were found between M and C subjects on any of the measures. Despite great within-group variance, performance of M subjects

	BAYLEY OBJECT SCALE	PERMANENCE	VISUAL HABITUATION	SUSPECT NEUROLOGICAL
METHADONE	$\bar{x}=95.6$	$\bar{x}=3.67$	$\bar{x}=8.31$	26.32%
CONTROL	$\bar{x}=101.7$	$\bar{x}=3.36$	$\bar{x}=-4.81$	21.74%

was not related to severity of withdrawal, maternal drug dose or polydrug abuse. There were significantly more Bayley scores below 85 (predictors of developmental problems) among M vs. C males ( $\chi^2=5.87, p<.025$ ). This confirms evidence that males are more vulnerable than females to negative environmental factors. It also corroborates animal data linking early methadone exposure to behavioral abnormalities in adult males.

**66** CHILD HEALTH AND BREASTFEEDING: THE EFFECT OF A SUPPORTIVE WOMAN (DOULA) DURING LABOR AND THE EFFECT OF EARLY SUCKLING. Marshall Klaus, John Kennell, Roberto Sosa, Case Western Reserve U., All Child. Hosp., St. Pete, Rainbow Babies & Childrens Hosp., Dept. of Peds., Cleveland.

Stimulated by the results of our first study on the short-term benefits of a doula (shorter labor, fewer perinatal problems, more early attachment behaviors), we designed a second study to explore long-term advantages of having a doula during labor and delivery. 244 primiparous full-term normal Guatemalan mothers in early labor were randomly assigned to the doula or control group. The mothers who delivered without perinatal problems were then randomized to early (1st hour) or late (2-3 hour) suckling. For these patients we made home visits at 1, 3 and 6 months to assess feeding practices, infant health status and make anthropometric measurements of the infant. Significantly more perinatal problems (cesarian section, meconium staining, fetal distress) occurred in the control group (61% vs 34%)  $p<.001$ , which replicates the findings of our first study. The presence of the doula and/or early suckling did not affect the length of breastfeeding or anthropometric measurements. The number of common pediatric illnesses (i.e. diarrhea, U.R.I.) did not differ between the control and doula patients. However, significantly more infants of the control mothers were hospitalized in the first six months of life with pneumonia or diarrhea (6/67 vs 0/49)  $p<.01$ .

These observations suggest that present maternity practices that require women to labor and deliver without support may result in iatrogenic disease of the mother and infant.