

**67** TEMPERAMENTAL PROFILE OF ATTENTIONALLY DISORDERED MALE CHILDREN. Edith J. Krak and Craig B. Liden (Spon. by Thomas K. Oliver), School of Medicine, Univ. of Pittsburgh, Dept. of Pediatrics, Children's Hospital of Pittsburgh.

A temperamental rating scale, Parent Impression of Temperamental Traits (PITT), was completed by parents of 6 and 7 y.o. attentionally disordered males ( $n=17$ ) and age/sex matched controls ( $N=17$ ) to determine if the two groups varied with regard to 9 standard temperamental variables. The experimental group was defined as attentionally disordered by a multidisciplinary team on the basis of objective evidence of attentional inefficiency on a Matching Faces Attention Task (MFAT) and history of attentional weakness by report of parent and teacher on standardized questionnaires. Controls showed no evidence of attention weaknesses on the MFAT or questionnaires. Parent ratings on the PITT generated raw scores for each temperamental variable that correlated with the Carey Behavioral Style Questionnaire for all characteristics except mood.

Means and SD were calculated for the 9 variables for both groups and univariate  $t$ -values derived. The experimental group differed from the control on 6 variables: high activity level ( $t=3.829, p<.01$ ); low persistence ( $t=3.323, p<.01$ ); high threshold ( $t=3.723, p<.01$ ); irregular rhythmicity ( $t=2.138, p<.05$ ); slow adaptability ( $t=2.490, p<.05$ ); high distractibility ( $t=2.192, p<.05$ ).

This temperamental profile differs from those described for clinically similar MBD, learning disabled and "difficult" children. These results suggest that a structured characterization of a child's temperamental profile can facilitate differentiation of these categories and thereby enhance treatment specificity.

**68** PRETERM BIRTH: EFFECT ON PARENTS. L. I. Kramer, M. A. Trause, The Fairfax Hospital, Falls Church, Va. Sponsored by, P. A. Jose.

To determine the effects of preterm birth on parents and their relationship, 38 middle class, married parents of preterm ( $\bar{X}$  birthweight = 1900gms.;  $\bar{X}$  gestational age = 34wks.) and 28 parents of term infants were compared within 1 week after birth and 1 and 6 months post-discharge. Data included measures of parents' own feelings, their perceptions of their spouses's well-being and of how bothered they felt by changes due to the baby.

Results indicated no differences between parents of term and preterm infants in sensitivity to spouse's well-being or degree of being bothered. Birth status did affect parental feelings soon after birth. Preterm parents cried more, felt more helpless, more worried about their ability to cope and future pregnancies than term parents ( $p<.01$ ). By 1 month, no differences were found. The sex of parent did repeatedly influence responses with mothers more bothered than fathers by changes due to baby at 1 month ( $p<.001$ ). Spouse's sensitivity influenced how bothered parents felt ( $r = -.34, p<.01$ ). Mothers rated themselves as more distressed than fathers on many items from birth through 6 months.

These data suggest having a baby is stressful for parents, especially mothers. Preterm parents experienced increased stress soon after birth which diminished once babies were home and did not affect their sensitivity to each other.

**69** NORTH CAROLINA PERINATAL TELECOMMUNICATIONS NETWORK: AN INNOVATIVE APPROACH TO INTERNURSERY COMMUNICATIONS. Edward E. Lawson, James S. Bostick, & Henry S. Hsiao (Spon. by H.S. Harned), University of North Carolina, Departments of Pediatrics & Surgery, Chapel Hill.

Transport of high risk mothers and infants has been shown to reduce neonatal morbidity and mortality. However, lack of information regarding availability of neonatal facilities at any center often causes excessive time delay before instituting a patient transfer. To address this communication problem we have designed a computer-based system which collects and disseminates referral information throughout a statewide network of ten perinatal centers. The system consists of a centrally-based microcomputer and auto-dial modem which interfaces through public telephone lines to a computer terminal (CRT) located in each center. At each center, the ability to accept maternal and neonatal transfers is assessed by the obstetrical and pediatric staff and entered into the CRT. Referral mechanisms and phone numbers as well as specific information regarding available facilities at each center are also displayed on the CRT. Every two hours the central computer sequentially interrogates each CRT and updates the entire system. Data regarding every center are continuously displayed on each CRT throughout the network. This system has the following advantages over manual systems: 1) information is always current; 2) complete data is available at each perinatal center throughout the state; 3) practitioner referral patterns are not affected; 4) reduced cost; and 5) automatic data compilation for long-term regional planning.

**70** THE APPLICABILITY OF THE DENVER PRESCREENING DEVELOPMENTAL QUESTIONNAIRE (DPDQ) IN A LOWER SOCIOECONOMIC POPULATION. Cristina Chua-Lim, Michael S. Rosenbaum, Joan Wilhite, Vipul N. Mankad (Spon. by R.M. Suskind). University of South Alabama College of Medicine, Mobile, Alabama.

Since the validity of the DPDQ has been examined only in predominantly White middle class populations in Denver, CO, a prospective study was conducted to assess the validity of the questionnaire in a predominantly indigent Black population. The effect of an educational package in increasing the accuracy of parental response of DPDQ as also assessed.

127 infants were enrolled in a longitudinal follow-up program from age 2 wks to 1 yr. Parents in a randomly selected experimental group observed an audiovisual presentation describing progressive developmental behavior and were asked to record their child's subsequent development.

78 of the 127 infants were followed for 3 mos, while 53 and 33 have been followed for 6 and 9 mos, respectively. The mean agreement scores between parental responses to the DPDQ and the observed development via DDST were 93.6%, 93.2% and 91% at 3, 6, and 9 mos, respectively. There were no significant differences in the item agreement scores of the experimental group vs the control group thereby demonstrating failure of the educational program in increasing the accuracy of parents. The overreferral rate was quite low (12.8%).

The results attest to the validity, generality and feasibility of DPDQ in a lower socioeconomic population and raise some questions about parent education through audiovisual and written materials.

**71** CORRELATION OF THE PARENT IMPRESSION OF TEMPERAMENTAL TRAIT SCALE WITH THE CAREY BEHAVIORAL STYLE QUESTIONNAIRE. Craig B. Liden, Timothy F. Murphy, William I. Cohen and Edith J. Krak (Spon. by Thomas K. Oliver). School of Medicine, Univ. of Pittsburgh, Dept. of Pediatrics, Children's Hospital of Pittsburgh.

A pilot study of the Parent Impression of Temperamental Traits (PITT) was conducted to determine the validity of its use as a short form alternative to the Carey Behavioral Style Questionnaire (BSQ). The PITT is a 27 item rating scale developed through an a priori factor analysis and modification of items from the BSQ. Administration and scoring of the PITT (requiring 5 min) are identical to the BSQ yielding mean scores for 9 temperamental variables: activity level-AL, rhythmicity-RH, approach/withdrawal AW, adaptability-AD, intensity of response-IR, mood-MO, persistence-PE, distractibility-DI, and threshold of response-TR.

Parents of 423 children (ages 60-144 mo.) completed the PITT to establish normative data. Twenty parents completed both the PITT and BSQ. Pearson product moment correlations were significant for 8 of 9 temperamental traits: AL( $r_{xy}=.514, p<.001$ ); RH( $r_{xy}=.643, p<.001$ ); AW( $r_{xy}=.686, p<.001$ ); AD( $r_{xy}=.458, p<.05$ ); IR( $r_{xy}=.678, p<.001$ ); MO( $r_{xy}=.114, NS$ ); PE( $r_{xy}=.627, p<.05$ ); DI( $r_{xy}=.405, p<.05$ ); and TH( $r_{xy}=.570, p<.05$ ).

Acknowledging reliability limitations, the favorable correlation with the BSQ suggest that the PITT is a cost efficient and effective means to screen a child's temperamental characteristics in a primary care setting for anticipatory guidance, in diagnostic settings where temperament is one of many pieces of data to be collected and in large scale field research projects.

**72** TREATMENT OF SEVERE AGGRESSION AND SELF-MUTILATION. Ira T. Lott, Paul M. Hardy, and Paul E. Touchette. Harvard Med Sch, E.K. Shriver Ctr--Mass Gen Hosp, Depts Ped/Neurol, Boston.

Chronic self-mutilation and aggression is a medically important and sometimes life threatening behavioral disorder in adolescents with profound intellectual deficits. In 40 institutionalized mentally retarded patients, lithium carbonate proved beneficial in relieving targeted aggressive behaviors in 35%, unhelpful in 28%, temporarily useful in 25%, and indeterminate in 12%. In the patients showing a beneficial response, a cyclical pattern of aggressive outbursts was seen in 86%, a history of sleep disturbance in 93%, and a positive family history of psychiatric disease in 71%. No serious side effects were noted during the period of medication. In 3 patients who proved refractory to therapeutic dosages of lithium carbonate, an operant conditioning program was implemented as follows: (1) reinforcement of nondestructive behaviors, (2) development and shaping of socially desirable behaviors, (3) training in muscle relaxation and vigilance, and (4) a generalization program to allow maintenance of therapeutic gains by nonmedical caretakers. Medically significant self-abuse ceased in all patients within 5 days, and each achieved greater than 90% compliance with a graded series of self-care tasks within 14 days. Abstinence from self-injury has been complete for up to 40 months. Lithium carbonate and/or the above behavioral program prove highly effective in controlling aggressive behavior in the mentally retarded. (Supported in part by USPHS grants HD 05515 and HD 04147)