

7

**ADOLESCENT MOTHER-INFANT-FATHER RELATIONSHIPS.** Arthur B. Elster, Michael E. Lamb (Spon. by Richard L. Stegler). University of Utah School of Medicine, Department of Pediatrics, Salt Lake City.

Little is known about the triadic relationship among adolescent mothers, their infants, and their male partners. The purpose of this study was to explore the characteristics of these interactions and the factors affecting individual differences in the quality of the relationships. Twenty-three couples and their 6 month old infants were observed at home using the observational procedure developed by Belsky (1983), following which parents were interviewed separately concerning their social support networks, marital adjustment, and perceived life stress. Mothers averaged 17.6 years of age and fathers 21; 91% of couples were either married or living together. Using analysis of variance, mothers were found to more likely ( $p < .05$ ) respond to, stimulate/arouse, display affection, and engage in caretaking behaviors of their infants than were fathers. As a result, the overall rating of the level of mother-infant engagement was higher than the rating for father-infant engagement. For both parents, the average level of engagement with their infant was significantly related to the observed husband-wife engagement and to reports of the availability of emotional support from persons other than their partner. There was no relationship between the level of parent-child engagement and reports of life stress, marital adjustment, or availability of emotional support from partner. Our results indicate that differences between adolescent mother-infant and father-infant behaviors are similar to those previously reported for adult parents. The data also confirm our prediction that that quality of adolescent parent-infant interaction is related to indices of their social situation.

8

**CHLAMYDIA TRACHOMATIS AND NEISSERIA GONORRHOEAE INCIDENCE IN FEMALE ADOLESCENTS.** Alan Figelman, John Keiser, Peter Zawadzky, Patrick Healy (Spon by Gerald W. Fischer). Departments of Pediatrics, Walter Reed Army Medical Center, Washington, D.C. and Uniformed Services University, Bethesda, MD.

The prevalence of cervical infection with *Chlamydiae trachomatis* and *Neisseria gonorrhoeae* was examined in 135 females receiving gynecologic care in an adolescent clinic. All teenagers, ages 13-18, who needed a pelvic exam, were included in the study. Cultures were obtained in 25 girls who denied sexual activity. In the 110 sexual active girls, *C. trachomatis* was isolated in 15% and *N. gonorrhoeae* was isolated in 9%. Neither *C. trachomatis* nor *N. gonorrhoeae* was isolated in any of the 25 non-sexually active patients ( $P < .001$ ). In all 6 patients in the study with a cervical discharge, either *N. gonorrhoeae* or *C. trachomatis* was isolated after culture. Cervical erosions, *Trichomonas* infections, and *Candida* infections were found in similar frequency in *Chlamydiae* positive and in *Chlamydiae* negative patients. Neither oral contraceptive use ( $n=36$ ) nor condom use ( $n=23$ ) was found to be associated with the incidence of *C. trachomatis* or of *N. gonorrhoeae*. Test of cure was obtained at 7 days in all 26 patients who had had initially positive cultures and antibiotic therapy was 100% effective. These results support the need to screen all sexually active teenagers for *Chlamydiae*. Appearance of a cervical discharge should alert the clinician to probable sexual transmitted disease. Concerns about the interrelationship of oral contraceptives with *Chlamydiae* are not supported by this study.

9

**AGGRESSIVE BEHAVIOR IN NORMAL CHILDREN AND EARLY ADOLESCENTS.** Jordan W. Finkelstein, Michael A. Preece and James M. Tanner, Department of Pediatrics, University of Texas Medical Branch, Galveston, Institute of Child Health, London.

This study assessed 4 dimensions of aggression (A): Physical aggression against peers (PAAP), verbal aggression against adults (VAAA), aggressive impulses (AI) and aggressive inhibitory responses (AIR). 43 boys and 63 girls aged 10-12 years completed the Olweus Multifaceted Aggression Inventory following Tanner staging. 36% of boys (Pub-B) and 45% of girls (Pub-G) were in early puberty (EP). The remaining boys (Pre-B) and girls (Pre-G) were prepubertal. Wilcoxon's signed ranks test for independent samples was used to compare median Olweus scores (OS). Pub-B had higher PAAP scores ( $p < .001$ ) and borderline higher VAAA scores ( $M=1.90$ ) than Pre-B who had higher AIR scores ( $p < .05$ ). Pub-B had higher VAAA ( $p < .05$ ) and PAAP ( $p < .001$ ) scores than Pub-G who had higher AIR scores ( $p < .01$ ). AI scores were the same in all groups. There were no differences in any OS scores between Pre-B and Pre-G nor between Pre-G and Pub-G. The finding that OS do not differ in Pre-G vs. Pre-B suggests that sex related variables influencing A are randomly distributed before EP. The higher OS in Pub-B may reflect changes associated with EP, ie. increase in testosterone. The failure to detect differences in AI suggests that the feelings of A are similar in both sexes, before and during EP. Higher AIR scores in Pub-G vs. Pub-B suggests that control of AI is different between sexes. Sex related variables associated with EP may play a role in the development of A in normal youth.

10

**FAMILY DYNAMICS AND MEDICATION COMPLIANCE IN TEENAGED EPILEPTICS.** Ira M. Friedman, Iris F. Litt, David R. King, University of California School of Medicine, Departments of Pediatrics, Stanford University School of Medicine, Departments of Pediatrics, San Francisco and Stanford, California.

Optimal seizure control for a teenager epileptic requires compliance with the prescribed regimen. We tested the hypothesis that poor medication compliance is associated with parental restrictiveness and family disharmony, since both thwart the attainment of the teens' developmental goals of independence and acceptance in the family. Twenty-five epileptic young people (ages 9-17 yrs. being treated with phenobarbital were observed for one year). Teens' perceptions of their Personal Freedom (TPF) in daily activities and Teens' views of harmony in their Family Relations (TFR) were measured using scales from the California Test of Personality. Similar scales assessed Parents' views of the teens' Personal Freedom (PPF) and Parents' views of Family Relations (PFR). Saliva Compliance Scores (SCS) were calculated from phenobarbital levels in saliva samples obtained monthly (by mail from the subjects' homes and at clinic and home visits). SCS was correlated with TPF ( $r=0.38, p=0.06$ ), PPF ( $r=0.52, p=0.007$ ), TFR ( $r=0.39, p=0.04$ ), and PFR ( $r=0.40, p=0.04$ ). The SCS was more highly correlated with TPF after partialling out the effects of age ( $r=0.41, p=0.04$ ), and sex ( $r=0.42, p=0.03$ ). These family issues have potential causal relationships to medication compliance in epileptic youth. Clinicians should monitor and address family-adolescent interaction in order to assure the desired outcome in the treatment of adolescents with epilepsy.

11

**MATERNAL FACTORS AFFECTING DEVELOPMENTAL OUTCOME OF INFANTS OF ADOLESCENT MOTHERS.** Cynthia Garcia Coll, Betty R. Vohr and William Oh. Brown Univ., Women & Infants Hosp., Dept. of Ped., Providence, RI.

Research indicates that infants of adolescent mothers (IAM) are at risk for developmental disability. However little is known regarding the factors that place their infants at risk. This study assessed developmental outcome in infants of teenage and adult mothers to examine which maternal factors affected the individual differences observed. Forty-four (21 mothers <17 years of age) primiparous, caucasian low to middle class mothers and their full term healthy infants participated in the study. When the infants were 4 mos. old, the Caldwell Home Scale was scored by an unbiased observer during a two-hour home visit. When the infants were 4 & 8 mo. old, information on child care support and life stress was obtained. At 8 mo. neuro-developmental assessments were performed. Neurologic status and motor development were similar between the two groups. However, IAM had lower Mental Development Indices (MDI) ( $T=3.35, p < .01$ ). Lower MDI in both groups were related to lower HOME total score ( $r=.41, p < .01$ ), less optimal child care support at 4 ( $r=.40, p < .01$ ) and 8 mo. ( $r=.38, p < .05$ ) and a greater number of stressful life events experienced by the mother since the infants' birth ( $r=.36, p < .05$ ). Thus in a medically low risk population we have documented the significant roles of home and personal factors in mediating the cognitive outcome of IAM.

12

**APPOINTMENT KEEPING BEHAVIOR IN ADOLESCENTS: IMPACT OF PATIENT PERCEIVED OUTCOMES ON COMPLIANCE WITH FOLLOW-UP APPOINTMENTS.** Charles E. Irwin, Jr., Susan G. Millstein, Kevin Grumbach. University of California, San Francisco, Dept. of Peds. (Spon. by Melvin M. Grumbach).

Appointment keeping behavior is multifactorial in nature. Factors that influence compliance with first appointments may differ from those effecting compliance with follow-up appointments. This study was designed to investigate the relationship of chief complaint, diagnoses, attitudinal/motivational factors, and adolescent perceived outcomes of noncompliance with follow-up appointment keeping. All adolescents who were given scheduled follow-up appointments within the subsequent three month period were entered into the study ( $n=166$ ). The overall failure rate was 48.5%. Multiple regression analyses showed that subjects who perceived a greater number of negative outcomes as a result of noncompliance were more likely to keep their follow up appointments ( $F=6.85, df=1,74, p < .02$ ). Subjects of lower social class were more likely to fail appointments than subjects of higher social class ( $F=5.07, df=5,110, p < .03$ ). There was a significant race by sex interaction ( $F=8.36, df=9,106, p < .001$ ): among black and white subjects there was little difference in failure rates (range=47-64%); in subjects of other backgrounds 80% of males failed and 19% of females failed. In addition to sociodemographic factors, identification of the adolescent's perception of the short term negative consequences of noncompliance with appointment keeping may be critical in achieving better compliance with physician visits.