BEHAVIORAL SCIENCES AND HEALTH STUDIES

13 CHILDREN-AT-RISK IN AN INNER CITY HOSPITAL,
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The newborn nursery in an inner-city hosp. provides an opportunity for the detection and treatment of abnormalities in a high risk population. Twelve months of births at Boston City Hospital were reviewed to determine the incidence of conditions requiring follow up. This was the first stage of a project designed to determine the extent and sources of follow up care received. Of the 1700 live births studied, approximately 8% were found to have a major or moderate abnormality on the basis of predetermined criteria. An additional 8% were considered at risk because of a medical condition of the infant such as prematurity, hyperbilirubinemia, or RDS; and 6% because of a medical problem of a parent such as a mother with TB, syphilis, or drug and alcohol abuse. Using hosp. records, an attempt was made to locate abnormal and at risk children to determine current status. Only 10% of the sample could be located. Further attempts were made to increase follow up using Neighborhood Health Centers, Headstart, death certificates, Crippled Children Program and Housing Authority records, and were unsuccessful. Welfare data could not be obtained. The inability to find the sample suggests high geographic mobility, self referral to multiple resources for care, parental unawareness, or a resolution of the condition. If the population continues to be at risk without the benefit of needed medical services, then the hosp. has failed in the important area of parental guidance and support.

14 CONSUMERS' VIEWS OF REGIONALIZED PERINATAL CARE
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During the summer, 1976, all parents whose babies were admitted to intensive care nurseries in Vermont or New Hampshire between January 1, 1975, and June 30, 1976, were mailed questionnaires. The instrument was designed to obtain opinions about care that their child received under a regional perinatal care program.

The population contained 610 families of which 31% responded. A reliability check indicated that poor, unemployed and underinsured people were somewhat underrepresented in the sample. But given the length of the questionnaire and the topic with which it dealt, the response rate was judged to be a good one.

Issues addressed by the survey included whether or not parents' experiences affected their thinking about having more children (40% answered at least a qualified "yes"), whether or not parents understood their child's illness and its treatment (15% said they had difficulty), whether or not they wanted to see or hold their baby prior to transport (18% had reservations about doing so), and their perception of the quality of care received.

Using a scaling technique which allowed parents to standardize their own responses, most parents rated care in the regional center very high. Those parents whose babies were taken to a regional center for care rated the center higher than their local hospital on indicators of quality of care. But over 90% of the sample said that they would return to their local physician.

15 EDUCATIONAL FOLLOW-UP STUDY.
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Significant acceleration of infant performance was previously reported on educational intervention program delivered to matched sample of 36 socially disadvantaged mother-infant pairs during first year of life. Testing of infants at 2 and 3 years of age suggests that positive results of earlier treatment were evanescent in absence of continued intervention. In the retrospective analysis of 15 social variables describing multiproblem families, mother's age, education, plans for returning to school, living arrangement, geographic living area, and any reported socially deviant behavior were most predictive of social risk status. Interaction between social risk scores of mothers and performance of their infants was analyzed. There was a negative correlation between risk scores of mothers and performance of their infants at year one ($r=-.388$; $p<.02$); at year two ($r=-.488$; $p<.008$); and at year three (verbal, $r=-.340$; $p<.049$ and cognitive, $r=-.288$; $p<.099$). Collection and analysis of follow-up data argue for continuous educational intervention for socially at risk mother-infant pairs during pre-school years.

16 A SIMPLIFIED ASSESSMENT OF GESTATIONAL AGE.
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Accurate gestational assessment is important for the appropriate management of every newborn infant. There is still a need for a simple yet reliable method which could be used by ancillary personnel as well as physicians. A score was developed by condensing the methods of Dubowitz and others. The new score consists of 6 neurologic and 6 physical criteria (see Klaus and Fanaroff: CARE OF THE HIGH RISK NEONATE p. 47, W.B.Saunders,1973). To obtain this,multiple physical criteria were combined into single observations and neurologic signs using active muscle tone (which are misleading in sick infants) were eliminated. To test the accuracy of the simplified system, the Dubowitz method was used as a standard, and 284 babies were examined by both methods by unbiased observers. Ages ranged from 12 to 96 hrs with weights ranging from 760 to 5460 gms. Correlation between the two examinations was 0.975,$p<.001$). Individual criteria of the simplified score on a second group of 86 infants were then weighted for predictive value according to their correlation with known dates. The gestational age tended to be more closely related to the individual components of the physical assessment ($r=0.614-0.784$) than to the neurologic criteria ($r=0.437-0.756$). The correlation for the score obtained for the total assessment ($r=0.952$) was greater than that for any of the individual components. The average time required for Dubowitz exam was 10-15 min, the simplified method 3-4 min. This simplified scoring system provides a rapid and accurate assessment of gestational age.

17 EFFECTS OF NEONATAL INTENSIVE CARE-A FOLLOW UP STUDY OF MULTIPLE BIRTHS.
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Nineteen sets of multiple birth infants (17 twins, 2 triplets) in whom at least one sibling required neonatal intensive care have been followed for periods between 6 months and 2 years. A significant finding in this population has been an acceleration of both the motor and mental developmental milestones in the sicker of the multiple siblings. This observation has been made independently by six of seven sets of parents in which only one sibling was transferred from an outlying hospital to the Regional Neonatal Intensive Care Center. This difference became evident to them within the first 6 months of life and has been supported on subsequent follow up visits and on developmental testing (Denver Developmental and Bayley Scales.) Aside from major central nervous system disease where the sequellae of bleeding or infection was permanent, this observation of both a more rapid acquisition of major milestones as well as a more aggresive and outgoing personality has held true for varying spectra of medical disease including severe respiratory failure which required prolonged mechanical ventilation. These findings raise questions concerning the current concepts of maternal-infant interaction and separation, the effects of intensive and continuous stimulation in an ICU setting, the possibility of neglect of the well sibling in favor of a more critically ill newborn having undergone prolonged hospitalization, and the possibility of later long term behavior disorders, learning disabilities, hyperactivity etc. in the "accelerated" sibling.

18 PREMATURE BIRTH AND CAREGIVER-INFANT INTERACTION.
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There are many reasons to expect disruption in the attachment of a caregiver to her preterm infant. A preterm infant would be subject, then, not only to increased risk from biological hazards but to increased risk of deficits in caretaking. In order to compare caretaking of preterm infants to caretaking of term infants, 16 normal term infants were matched by sex, birth order, and maternal education to 32 preterm infants. Time sampling of maternal behaviors, infant behaviors, and reciprocal behaviors were made during naturalistic home observations at 1, 3, and 8 months conceptional age for all infants. Few differences were found in the readiness to provide care and social interaction to term infants and to preterm infants. Term infants, however, were freer to explore the environment at 8 months. That difference may preview a restriction of autonomy for the preterm infant. Despite that difference, there was no evidence of major disruption in maternal attachment, as measured by our indices of caregiver-infant interaction. Important questions about the factors that influence human maternal attachment are raised by the absence of major differences. Further, there was little evidence that the vulnerability of preterm infants to developmental disabilities could be ascribed to gross disruptions in caregiving during the first year of life.