some indication that the S-P method was superior in at least some cases. J. Oliver (Columbia University) described a method for studying spatial variations in activity with very lightweight, portable, high-gain, high-frequency seismographs, and presented results for areas in Nevada, Tonga-Fiji, and Alaska. J. Brune (CIT) applied the same method in southern California to determine spatial variation in activity associated with the San Andreas Fault. Iida presented a formula for determining magnitudes of shallow near earthquakes and microearthquakes, and discussed the relationship between magnitude and frequency of occurrence for microearthquakes.

The meetings were followed by field trips for the Japanese delegation to the Ogdensburg (New Jersey) seismograph station of the Lamont Geological Observatory and to areas of Nevada and California exhibiting recent faulting and other geological features related to earthquake activity.

Summaries and discussions of papers will be available in more complete form in a publication currently in preparation.

JACK OLIVER
Lamont Geological Observatory,
Columbia University,
Palisades, New York

Pediatric Outpatient Department

Service to patients is, as it has always been, the primary function of pediatric outpatient departments. In recent years, however, it has become increasingly apparent that outpatient departments have a unique opportunity to identify significant trends and problems which need to be studied, to initiate research, and to apply in practice the findings of this research.

How the outpatient department can most effectively fulfill this new role was the focus of a conference on Conceptual and Methodological Approaches to Research in Pediatric Outpatient Departments, held in Washington, D.C., 13–14 December 1965. Pediatricians and behavioral scientists considered what these disciplines can contribute to and learn from each other.

Clinical observation, the group said, has led to most of the significant theories developed by behavioral scientists. Studies involving single cases and small groups can provide important knowledge about developmental psychology. The physician, trained in precise description of medical conditions, can apply the same approach to delineate the types of information needed in behavioral studies. One of the most important functions of the physician dealing with the outpatient is to make the "natural experiment," (for example, a blind infant) known to and available to behavioral scientists who must otherwise rely almost entirely on animal experiments for observation of certain types of variables.

The pediatric outpatient department is particularly well suited for two types of research—identifying the questions that need study while developing new ways to improve the clinic's effectiveness in dealing with problems frequently encountered, and notifying other disciplines and research facilities about problems that need study but are too complex to be pursued in the outpatient department. Efforts should be made to utilize more fully the potential of outpatient department research in training medical students.

Several participants reported on recent or current studies in outpatient departments. Pediatricians Morris Green (University of Indiana Medical Center) and Sally Provence (Child Study Center, Yale University) reported a "clinical hunch" based on symptoms observed in 25 children whose mothers reported having experienced moderate to severe depression after childbirth. Their clinical findings suggest that possible correlations between maternal depression periods after childbirth and certain psychological and behavioral problems in their children should be explored further. Among questions needing clarification, the conference group suggested, are how the mother's manner of caring for the child supports or impedes the child's development; how particular kinds of children influence parental care; what more effective forms of support can be given the mother during the crucial period after birth; how depressed mothers and their children interact at various stages; and what effects these interactions have on subsequent behavioral development.

Studies suggest that a baby born out of wedlock is sociologically and psychologically handicapped. The child is born at high risk from the standpoint of morbidity and mortality (Loren MacKinney, pediatrician, and Robert Wilson, sociologist, of the Memorial Hospital of North Carolina). Joint medical, social, and psychological studies are essential to identify the variables most closely associated with illegitimacy, to test hypothetical causal chains, and to develop controlled prospective experimental programs of intervention to reduce the high risk factors.

Reporting on a comparative developmental study of blind and sighted twins, Arthur Parmalee (Medical Center, University of California) and Peter Wolff (Judge Baker Guidance Center, Boston) suggested numerous areas of cognitive development of the visually handicapped which have been inadequately explored. They recommended investigations of the ways that normal and blind babies communicate with their mothers during the first 4 or 5 months of life, and of the kinds of touch, sound, and movement stimulation that are most effective in encouraging development and independence. The group raised many provocative questions about how the blind child generates an abstract concept of far space versus near space; what his understanding of object and constancy is and how this affects his ability to differentiate between self and non-self; and how the blind child initiates social relationships since he has no way of knowing who is approaching.

Barbara Korsch (Children's Hospital, Los Angeles) described a study now under way to determine what elements of interaction between physician and patient in the outpatient setting significantly affect outcome. The high level of noncompliance with medical instruction appears to indicate a breakdown in doctor-patient communication in individual, nonsustained encounters. A central question, the group suggested, is what factors modify the patient's perception of the information and advice he has received to the point that it becomes defective.

Research in the outpatient department is not only important in advancing general scientific knowledge but it also has many direct implications for better service in the outpatient department. Both financial and administrative support are needed for creative interdisciplinary studies in the unique laboratory setting provided by the outpatient department.

RICHARD W. OLMSTED
Department of Pediatrics,
University of Oregon Medical School,
3181 SW Sam Jackson Park Road,
Portland, Oregon 97201