This paper describes a 2-year practicum in pediatric psychology at the Bay State Medical Center, as administered by the Psychology Department of the University of Massachusetts. An overview of the pediatric psychology program and its collaborative design between clinical and developmental psychology is given. The learning objectives, and the academic and clinical components of the program are outlined, all of which include joint coursework between psychologists and pediatric residents and case conferences with pediatric residents. Clinical casework further includes assessment and short-term treatment of children with combined medical, developmental, and psychological problems. Two case studies are presented to illustrate the interdisciplinary nature of the program. Evaluation of the program's success is explored in the areas of benefits to the students, process, costs, and research efforts. Program areas needing improvement are addressed. The paper concludes with a list of collaborative research studies which were initiated in the first 2 years of the program. (BL)
A CLINIC OUTPOST: TRAINING FOR PEDIATRIC PSYCHOLOGISTS

Alvin E. Winder, Ph.D., M.P.H.
University of Massachusetts
Division of Public Health
Amherst, MA 01003
Abstract

The present paper describes a practicum in pediatric psychology. A program administered by the Psychological Services Center, a training clinic sponsored by the Psychology Department of the University of Massachusetts. The program in pediatric psychology represents a collaborative effort of the two program areas of clinical and developmental psychology. The setting is the Bay State Medical Center, a large urban hospital complex.

The program includes an academic and an clinical component. The academic component provides for joint coursework between psychologists and pediatric residents. The clinical component includes case conferences on inpatients and outpatients and assessment and short-term treatment of children with combined medical, developmental and psychological problems. Six to eight students spend one to two days a week at the Medical Center for two academic years.

The benefits to psychology students include their successful completion of the learning objectives of the program. The P.S.C. has benefited from a successful collaborative effort between two program areas and a medical center. Costs to the P.S.C. are reflected in the need to assign a faculty member to the program and the cost of supporting student travel and providing materials. Much of these costs are currently being absorbed by the Medical Center.

The presence of psychology students has stimulated six collaborative research efforts between pediatric staff and psychologists during the first two years of the program. Several of these have been jointly presented at professional meetings and co-authored for publication.
The traditional relationship between psychology and the medical care system has undergone a change in the past twenty-five years. A result of this change has been the establishment of a positive professional interaction between psychology and pediatrics with the consequent development of the pediatric psychology subspecialty. Concomitant with this development has been the appearance of a number of designs for training psychologists to work with pediatricians (Drotar, 1975; Routh, 1977; Stabler and Whitt, 1980; and Tuma, 1982). Presently, pediatric psychology training is conducted primarily at the pre-doctoral internship level (Routh, 1972). University-based programs, on the other hand, have been slow to respond to the need to provide graduate training in pediatric psychology. Ottinger and Roberts (1980) report one such program at Purdue University. This paper also reports a University-based training program which has, however, a somewhat different emphasis from the program developed at Purdue. The major emphasis of the University of Massachusetts Training Program is on collaboration between the Psychology Department and the Pediatric Department of a large urban Medical Center. The emphasis on collaboration is a major theme of the training program and extends to collaboration between pediatric residents and staff, pediatric psychology students and patients, as well as collaborative research effort between staff and students. The paper additionally provides, within the framework of collaborative learning, a detailed evaluation of the educational experiences of the pediatric psychology students.

THE PEDIATRIC PSYCHOLOGY PROGRAM

Baystate Medical Center, the site of the Pediatric Psychology Program, is an approximately 1000 bed general hospital. The Pediatric
Department has sixty-nine inpatient beds and an outpatient section, ambulatory pediatrics, which has reported approximately 26,000 patient visits over the past two years. Ambulatory pediatrics is staffed by three staff pediatricians, fifteen pediatric residents, two pediatric nurse practitioners, and three specialty clinic pediatric physicians. The University of Massachusetts psychology department has fifty-seven full time faculty and offers doctorates in psychology, with specialty areas of clinical, developmental, biopsychology, educations, social and cognitive. The University of Massachusetts, through the Psychology Department is under contract to provide pediatric psychology services. Two program areas, clinical and developmental, in the Psychology Department have collaborated to field the pediatric psychology program. The clinical part of the program is administratively related to the Psychological Service Center, which is a training clinic sponsored by the Psychology Department.

LEARNING OBJECTIVES

The program offers academic and supervised clinical experiences for pediatric psychology students, the learning objectives of which are: (1) to apply theories and research of normal child development to pediatrics; (2) to foster the learning of child clinical psychology, family evaluation and developmental assessment skills in a pediatric setting; (3) to define and develop a professional role for the pediatric psychologist; (4) to support the development of a collaborative research between psychologists and pediatricians. The program is trans-disciplinary in nature, and combines both clinical and developmental models in a unique integrative approach to the learning of psychology in both theory and practice.
ACADEMIC COMPONENT

The academic components of the program for both pediatric residents and pediatric psychologists include: (1) an advanced course in normal child development, covering such topics as social, emotional and cognitive development of infants, children and adolescents, Piagetian theory, psychoanalytic theory, transactional developmental models, cross-cultural perspectives on parenting and Winnicott's view of pediatric developmental psychology; (2) a course on pediatric and perinatal medicine, taught by pediatric house staff, covering such topics as the well-child examination, selected topics in neurology and endocrinology; chronic and infectious diseases of childhood, encopresis and enuresis, seizure disorders, psychiatric diagnoses of children; (3) a series of workshops and lectures on family interviewing techniques, object relations theory, and infant and child assessment techniques; (4) research meetings on questions related to the pediatric setting; (5) medical educators, pediatric residents and pediatric psychologists present and integrate medical and psychological findings at a disposition staff meeting.

CLINICAL COMPONENT OF THE PROGRAM

The clinical components of the program include: (1) participation in and consultation to the outpatient, continuity and walk-in clinics; (2) case conferences on inpatients, continuity clinic patients and walk-in patients; (3) participation in the Developmental Evaluation and Brief Intervention Clinic (D.E.B.I.C.), an outpatient clinic aimed at the assessment, and short-term treatment of children and adolescents with combined medical, developmental, and psychological problems.

During the past two years, the Developmental Evaluation and Brief
Intervention Clinic has processed forty-five children and their families. Demographic data reveal that ninety percent are from lower socioeconomic status, forty percent are Black, thirty-seven percent Hispanic and twenty-three percent Caucasian. Referrals to the clinic are made by schools, social agencies, courts, pediatric staff and local private practitioners, both medical and psychological. The D.E.B.I.C, is conducted by the Psychological Services Center with the pediatric psychologists billing on a fee for service basis. Most billing is through third party payment, for example, private insurance companies and medicaid.

Patients represent a wide range of problems including behavior disorders, anorexia nervosa, failure to thrive, language and hearing problems, genetic disorders and hyperactivity. Methods of assessment include the Brazelton, the Peabody, the Bender-Gestalt, the Kinetic Family Drawing, the Winnicott Squiggle Game, doll play, the WISC-R, the C.A.T., the Rorschach, the McCarthy, the Denver Developmental Screening Test, the Bayley, and child and family interviews. All patients were seen at Baystate Medical Center. Visits range from one to six times with three the model number.

The diverse range of patients and problems seen in D.E.B.I.C, encourages pediatric psychology students to draw on and integrate various therapeutic modes and theoretical models in a way that is unique in the training experience. Psychosomatic Theory is the major conceptual base used in evaluation and treatment, with particular emphasis placed on the developmental viewpoint. Initial formulations are from a normal developmental perspective, and view behavior disorder in terms of stresses on the normal developmental process. Among these stresses in the low and moderate income population served by Baystate is the larger
psychosocial context in which the child lives, and thus community and family perspectives are integrated into both clinical thinking and practice.

SUPERVISION

Supervision is provided by a pediatric psychologist faculty member through two modalities. First, on-site supervision is provided to help team members develop an assessment plan, select the appropriate tools, and determine how to interview the client and or family. Assessment and/or intervention skills are discussed and often demonstrated by the supervising psychologist. More extensive discussion of cases and assessment data take place in weekly team meetings at the Psychological Services Center which are also facilitated by a trained group leader. Team meetings provide an opportunity for discussion of the organizational as well as clinical aspects of the pediatric psychologists role, and indeed have led to an evolving definition of this role.

JOINT TRAINING OF DEVELOPMENTAL AND CLINICAL PSYCHOLOGY STUDENTS

The joint training of developmental and clinical psychology students to do applied work in pediatric psychology is presently seen as a controversial issue. The American Psychological Association has recently stated the position that psychologists who are not formally trained in a clinical program must return for retraining before they can be considered competent to perform clinical services. This statement refers to doctoral level psychologists previously trained in a non-clinical area of psychology. Nevertheless, some psychologists may see the training of developmental psychology students in pediatric psychology as contrary to the position of the American Psychological Association. The philosophy of training subscribed to by this program
does reflect an alternative view to that stated by APA. This view holds that practice in clinical psychology should be dependent upon a competency-based model. The implication of this model for our developmental students is that once they have gained knowledge and experience from their participation in the program, they may, upon completion of their doctorate in developmental psychology, apply for an internship in pediatric psychology. Upon completion of the internship they would be competent to practice. One of the students is currently applying for a post-doctoral internship. The other has elected to take an academic research position.

CASE ILLUSTRATIONS

Two cases are presented to illustrate the effectiveness of the collaborative model both for the patient and for teaching purposes.

The first case illustrates the collaborative process by which information from medical staff's evaluation and the pediatric students' assessments are integrated in order to develop a comprehensive understanding of the child's difficulties. The second case illustrates the transdisciplinary team approach.

Jack, a four year old boy, was brought into the Outpatient Pediatric Clinic by his mother and grandmother, who believed he had been sexually molested while visiting his father the previous weekend. Jack complained of pain in his genital area, had difficulty urinating, and was extremely frightened and withdrawn. A male pediatrician and female resident examined Jack and found ulcerations on his penis and indications that the foreskin had been forcibly retracted. They also noted that Jack was terrified of having to take his clothes off for the exam and had to be forcibly undressed. Jack would not speak to the physicians about his experience. Although their exam indicated a possibility of sexual abuse, the physicians knew they needed more evidence before
such a report could be made. They, therefore, immediately referred the family to the Developmental Evaluation and Brief Intervention Clinic for a more comprehensive assessment.

A female pediatric psychology student, who had received training in assessment and treatment of child sexual abuse, met with Jack for three hour-long meetings. Another pediatric psychology student obtained a history from the mother and grandmother. A variety of assessment techniques were used with Jack; including the Winnicott Squiggle Game, the Kinetic Family Drawing, Puppet Interviews, and structured and unstructured play. This testing indicated that Jack was in a precarious emotional state and at risk for serious emotional difficulties. Furthermore, the pediatric psychology team was convinced that Jack had been sexually abused in his father's house and that he was terrified of the possibility of further abuse.

The student presented her findings at a pediatric staff meeting, reporting in detail the course of her assessment. As this was also a training opportunity in sexual abuse assessment, for both pediatric psychology students and the medical staff, she spent much time explaining the process of her assessment and the justification for her conclusion. This sharing of knowledge with those on the pediatric staff allowed for mutual collaboration on the case. A discussion of current and potential sources of stress and support helped determine an intervention strategy. The medical social worker filed a report on sexual abuse and helped in finding an appropriate referral. It was decided that the pediatric psychology student would see Jack in several play therapy sessions in order to help him work through his feelings of vulnerability, anxiety, and rage. His family was then referred to a more intensive, long term therapeutic treatment center. The physicians
were instrumental in helping the student prepare for her role as expert witness in the forthcoming court case by sharing their own experiences on the witness stand.

Val, a six year old boy living with his mother and sister, was referred to the Developmental Evaluation and Brief Intervention Clinic by a pediatric nurse practitioner. She was concerned about Val's headaches and blacking out spells, for which no medical basis was found. Val's mother was having increasing difficulty in controlling his violent outbursts, and the nurse practitioner was worried about the potential for child abuse in this mother-child pair.

Two developmental students and two clinical students from the pediatric psychology team worked together in designing and implementing an appropriate assessment. The evaluation included both cognitive and personality tests for Val as well as a family interview in order to assess the contributions of biological, intrapsychic, interpersonal, and cultural factors to Val's difficulties. A comprehensive history revealed that the mother had been hospitalized for psychosis several times with the considerable frustrations involved in interacting with her son. Val had a history of severe behavior problems. Shortly before the first interview he had broken windows in his house, sliced up his mattress with a razor, threatened his sister with a knife, and thrown objects at his mother. He constantly shadowed his mother, refusing to let her out of his sight, day or night.

An assessment of Val's cognitive and intellectual functioning revealed an age appropriate ability to judge and reason, which tended to rule out any thought disorder. He demonstrated some capacity for engaging in goal directed activities when alone with the examiners, but these strengths failed to appear in his mother's presence. His high score on the comprehension subtest of the WISC-R indicated a heightened
sensitivity to moral issues, particularly to struggles around acceptance by authority.

The Winnicott Squiggle Game, the Children's Apperception Test, and the Kinetic Family Drawing were utilized to assess Val's emotional functioning. His stories and drawings seemed to reflect a wish to regress and be nearer to his mother while seeing her as a nonprotective figure who would desert or destroy him.

It was clear from the family assessment and interviews that Val's difficulties were precipitated by pathogenic family interactions. Val tended to become disorganized and withdrawn in his mother's presence, causing his mother to become increasingly exasperated and punitive. Val and his mother appeared to be locked in a destructive and near-psychotic cycle of interaction, in which both his mother's sense of ineffectiveness and incompetence, and his sense of his own badness were repeatedly confirmed.

The transdisciplinary team approach allowed the examiners to integrate both individual and family systems models in understanding the developmental and familial context of Val's problems. It was decided by the assessment team that any treatment plan for Val would necessitate an intervention into this negative cycle of interaction. After presenting these findings to the medical staff, it was decided to refer the family to a program with extensive outreach component and intensive multifaceted services.

EVALUATION OF THE EDUCATIONAL DIMENSION OF THE PROGRAM

The traditional formulation of the evaluation question is: to what extent is the program succeeding in reaching its goals? Weiss (1972) has noted that goals should be stated in terms that are clear, specific,
and measureable. Programs such as this one, which are developed in the field, are in a process of evolving. It is characteristic of this process that goals may be modified, de-emphasized and supplanted by new goals. Such programs are characterized as open systems. The open systems approach to evaluation involves the measurement of indicators of effectiveness. The present program evaluation utilizes several effectiveness indicators. These are effort, process and treatment effects.

THE ASSESSMENT OF EFFORT

Questions designed to assess effort ask, what did the trainee do in terms of clinical service, interaction with the pediatric residents, and training/supervision, that had an effect on the program's success. Given the breadth of trainee's experience and background the sharing of each team members' expertise and skills in various assessment and intervention techniques was viewed as crucial to the success of the clinical services of the program. The major efforts cited in this regard were training fellow students in theory and assessments, researching and obtaining additional assessment materials to use with difficult patients, attending outside conferences relevant to the cases, contributing psychodynamic, family systems, or developmental perspectives to the pediatric cases, introducing the team to assessment for sexual abuse, developing family interview procedures, and pursuing short term interventions either through their clinical work or consultation with pediatricians and residents.

Trainees efforts in the supervisory/training aspect of the program included designing lectures and presentations on various topics related to the theory and practice of psychotherapy, sharing outside reading and information gained from attending relevant conferences, organizing workshops on the administration and interpretation of a range of
assessment techniques, and actively formulating theoretical models of cases in training the less clinically experienced team members.

Effective collaboration between pediatric psychologists and pediatricians has resulted in the initiation and implementation of six joint research projects.

THE ASSESSMENT OF PROCESS

Questions that assess process ask, what formal, informal, or unanticipated factors operating in the program contribute to the success of the training program? In assessing the strengths of the program, trainees cited a number of processes.

1. The coursework in child development and in pediatric medicine combined with the case conferences and consultations with medical staff provided many formal and informal opportunities for collaborative learning.

2. There was a strong emphasis on maintaining a balance between education and service. Thus, students were encouraged to participate in any activity that would further their training. At the same time, trainees commitment to providing the best service possible fostered enthusiasm about learning new methods of assessment and intervention.

3. The unanticipated variety and intensity of patient problems created opportunities for working with underserved patients presenting students with a range of combined developmental/medical/psychological problems. This necessitated the development and integration of skills in a variety of assessment techniques and intervention strategies.
4. The weekly team meetings of the pediatric psychologists examined the parallels between trainees' reactions to the hospital experience and the group process, providing a further opportunity to understand and work at collaboration both between team members and medical personnel.

5. The training location, within a pediatric hospital, and the program design, of consultation with residents, presentations at case conferences, and training of pediatric residents, allowed trainees the opportunity to form professional relationships with pediatricians and pediatric residents.

6. The non-hierarchical supervision style served to encourage students to try different perspectives in their work with patients. The supervisor's commitment to student needs, respect for different ideas, and unusually creative and varied clinical experience, served to encourage the trainees to develop their own ways of integrating the various perspectives in working with patients.

7. The transdisciplinary model of the team combined with the unanticipated high intensity learning situation made for a strong sense of commitment among the students. Collaboration and role exchange between developmental and clinical students within the team was thus enhanced.

8. The broad experience of the first year (observations of continuity clinics, coursework in child development and pediatric medicine, exposure to a variety of clinical populations) helped transform and enhance the more
Intensive clinical work involved in the second year,

The challenge of developing and implementing a new program within a new context greatly enhanced trainees' personal and professional growth.

THE ASSESSMENT OF TREATMENT EFFECTS

Treatment effects were assessed by asking trainees what aspects of the program had the greatest impact on their competencies in assessment and intervention and their ability to work in a medical/pediatric setting?

Practice in test administration and interpretation, and discussions integrating these procedures were important in developing trainees assessment skills. The method of collaboration among students with varied backgrounds included observation, discussion, and supervision in how to use and select different assessments with respect to a specific referral question. The diversity of training within the group of pediatric trainees and between the pediatric psychologists and the medical personnel were important aspects of the development of these competencies.

The program's tenet that different intervention techniques could and should be explored allowed students to collaborate in developing strategies for brief intervention. Thus, students felt encouraged to use an unstructured psychodynamic approach to play therapy with one patient, while utilizing directive and structural interventions with another patient's family. The realization that brief intervention, well managed, can have a significant impact on the family was important to those trainees who had minimal clinical background.
SOME PROGRAM AREAS NEEDING IMPROVEMENT

Students were also asked to state those areas of the program that most needed improvement. These can be described according to two categories. The first of these deals with the students' relationship to the pediatric residents. The second reflects the students' concern about their learning and performance within the medical setting. The three issues identified in the students' relationship to the pediatric residents involve comparability of educational level, equality of student status and health care role, and the nature of the collaborative relationship.

Educational levels were not comparable between the residents who were engaged in post doctoral training and the psychology graduate students. The academic component of the program, however, was designed to develop a common student group. Residents and psychology students, together, attended lecture and discussion sessions on both medical and psychological topics. Psychology students commented that sharing these classes provided a basis for mutual understanding of each others language, concepts, and philosophy of patient care. The program was less successful in developing an equality of student status between residents and psychologists and in developing for both an equal role in providing health care. A difficulty which developed early in the program and which was never fully remedied was the nature of the referral model. Patients were referred to the psychologists by the pediatricians and pediatric residents. Student comments reflected dissatisfaction with this system and students responded that they felt excluded from most of the decision making process. Some progress was made towards changing this model. Psychology students and residents began to jointly interview newly admitted patients and to
mutually develop an assessment procedure and intervention plan. This change did not, however, lead to a full partnership or the hoped for collaborative model between pediatric residents and psychology students. The students comments on the problem stated that informal relations between the two groups was good. They believed that formal collaboration was hindered by the structure of the residents program. The organization of the residents time and their heavy patient load were identified as the two structural elements that helped defeat the collaborative purpose of this aspect of the program. The psychology faculty, in response to this student identified need, have proposed some innovative changes that they felt would enhance this aspect of both psychologist and resident training. These changes, however, also affect the organization and provision of patient care as well as resident training. It seems, presently, that the capability to affect this change may be beyond the scope of a pediatric psychology training program.

The second category of student concern reflects their subjective experience of adapting to a medical setting in which they were faced with an ambiguous health care role. Student comments reflected a continuing struggle with role definition. This problem was partially alleviated by the scheduling of weekly meetings of the pediatric psychology team. These meetings were scheduled at the Psychological Services Center and time was set aside for the students to explore the process variables involved in coping with all dimensions of the hospital experience.

RESEARCH ACTIVITIES

The Developmental Pediatrics Program has resulted a number of ongoing research projects that are related to pediatric psychology. These projects, have often involved collaboration between psychology students and faculty, and pediatricians. The following represent the research
projects designed and implemented in the first two years of the program.

1. A study of cardiac and behavioral responses to repeated auditory stimulation in preterm neonates. This study was designed to evaluate whether the deleterious effects of prematurity are the result of immaturity of birth or of the illness that so often occurs with early delivery.


3. A study of infants behavioral and cardiac responses in orienting to sounds.

4. A study of healthy children's response to chronic illness in siblings.

5. A study of maternal social emotional development as affected by infant health and family support.

CONCLUSION

The evaluation of the educational dimension of the program suggests the following conclusions:

1. A joint program between a University-based psychology department and a large urban Medical Center can function as a collaborative learning experience between pediatric staff and pediatric psychology students.

2. Students from a University-based program find a medical setting providing for service to patients, shared learning and joint decision making with pediatric staff an effective learning experience.

3. The interaction between problem oriented pediatric practitioners and pediatric psychology students with research training and interests, facilitates research collaboration between the two groups.
REFERENCES


