such as McArdle's syndrome, do not have true episodic weakness, but may have severe cramping with pain following mild exercise.

A high index of suspicion is probably the most valuable diagnostic aid when the examiner is presented with a clumsy, obese child or teenager with the presenting diagnosis of muscle paralysis or weakness. A detailed history of the number of hours spent viewing television each day and specific questions about interaction with the child's peers and the family are most important. Once the diagnosis of hysterical paralysis is established, rehabilitation measures with a good physical exercise program should be combined with family therapy.

References

1. Dubowitz V, Hersov L: Management of children with non-organic (hysterical) disorders of motor function. Dev Med Child Neurol 18:358, 1976

Friedman S: Conversion symptoms in adolescents.
 Pediatr Clin North Am 20:853, 1973

 Dubowitz V: Muscle Disorders in Childhood. Phila

3. Dubowitz V: Muscle Disorders in Childhood. Philadelphia, WB Saunders, 1978

Clinical Pharmacy Services in Family Practice Residency Programs

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The provision of clinical pharmacy services in a variety of health care programs has increased in the past decade and has been described in hospital settings,^{1,2} ambulatory care clinics,³⁻⁵ and private practice settings.^{6,7}

Juhl and his co-authors⁸ have described the provision of clinical pharmacy services to thirdyear family practice residents and their patients in a model family practice residency office site. Robertson and his associates⁶ have described a clinical pharmacist-family physician partnership operating in a private practice setting. Efforts to promote the utilization of clinical pharmacists by family physicians have been considered desirable by pharmacists and physicians.^{9,10}

Characterization of these services to residents in all family practice residency programs has not been previously reported. In the summer of 1980, a study was undertaken to examine the extent of clinical pharmacy services in family practice residency programs.

Methods

A sample of programs to be studied was selected from the 373 accredited US family practice residency programs and was randomly stratified into a I or II portion of a Solomon four-group design.

A survey form was developed to assess the degree and type of clinical pharmacy involvement in the residency program. This form consisted of a list, drawn from the literature, of 14 clinical pharmacy functions designed to be checked off as they pertained to the individual program.

A packet consisting of the survey form, a group of resident questionnaires (to be used for another portion of this project), and a self-addressed return envelope was mailed to the director of each program in phase I on August 1, 1980, and to all of the

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study programs on August 1, 1981. A cover letter explaining the entire study, instructing the director in the completion of the survey portion of the study, and requesting the director or the director's designate to administer the questionnaire to the first-year residents was included.

Results

A total of 206 programs returned usable survey forms. Of the 373 accredited programs listed, 359 were currently in operation, resulting in a return rate of 57.4 percent.

Responding programs with clinical pharmacy services tended to be from the urban Midwest and had fewer self-paying and more private, thirdparty-paying patients than programs without clinical pharmacy services.

Frequency analysis of clinical pharmacy services offered in the family practice residency programs is summarized in Table 1.

Comment

More than 59 percent of the responding programs offer three or more kinds of clinical pharmacy services to their residents. This is in contrast to Johnston and Heffron's findings¹¹ that only 29 percent of their surveyed programs were affiliated with a clinical pharmacist (implying provision of clinical pharmacy services). It appears that a majority of residents in family medicine training programs receiving clinical pharmacy services do so from sources other than a program-associated pharmacist. The three most frequently offered services were found to be the provision of drugtherapy information to the resident, assistance to the resident in drug or dosage selection, and the provision of consultation on an individual patient's drug therapy.

References

1. Briggs GG, Smith WE: Pharmacist-physician drug consultations in a community hospital. Am J Hosp Pharm 31:247, 1974

2. Madden RW: Monitoring the effectiveness of anti-

Programs (n = 206)	
Pharmacist Function	No. of Programs
Provides drug therapy information to the resident	127
Provides assistance in drug and/or dosage selection	109
Provides consultation on individual patient's therapy	92
Manages medication refill requests	70
Routinely provides drug therapy lectures to the residents	68
Provides drug therapy information to the patient	64
Monitors and reviews prescriptions written by residents	54
Performs serum drug level interpretation	50
Attends physician hospital rounds	46
Monitors residents' hospitalized and/or nursing home patients	45
Monitors patients for possible side effects of drug therapy	43
Monitors drug therapy of patients with chronic disease	41
Performs patient medication history interviews	32
Monitors the residents' ambulatory patients in the outpatient facility	26

Table 1. Individual Clinical Pharmacy Service Frequency in Family Practice Residency

microbial agents in a general hospital. Am J Hosp Pharm 31:262, 1974 3. Reinders TP, Rush DR, Baumgartner RP, Graham

 Reinders TP, Rush DR, Baumgartner RP, Graham AW: Pharmacist's role in management of hypertensive patients in an ambulatory clinic. Am J Hosp Pharm 32:590, 1975

 Reinders TP, Steinke WE: Pharmacist management of anticoagulant therapy in ambulant patients. Am J Hosp Pharm 36:645, 1979
 Ivey M: The pharmacist in the care of ambulatory

 Ivey M: The pharmacist in the care of ambulatory mental health patients. Am J Hosp Pharm 30:599, 1973
 Robertson DL, Groh MJ, Papadopoulos DA: Family

 Robertson DL, Groh MJ, Papadopoulos DA: Family pharmacy and family medicine: A viable private practice alliance. J Fam Pract 11:273, 1980
 Roberts RW, Stewart RB, Doering PL, Yost RL: Con-

 Roberts RW, Stewart RB, Doering PL, Yost RL: Contributions of a clinical pharmacist in a private group practice of physicians. Drug Intell Clin Pharm 12:210, 1978
 B. Juhl RP, Perry PJ, Norwood GJ, Martin LR: Family

 B. Juhl RP, Perry PJ, Norwood GJ, Martin LR: Family practitioner-clinical pharmacist group practice. Drug Intell Clin Pharm 8:572, 1974
 Maudlin RK: The clinical pharmacist and the family

9. Maudlin RK: The clinical pharmacist and the family physician. J Fam Pract 3:667, 1976

10. Geyman JP: Clinical pharmacy in family practice. J Fam Pract 10:21, 1980

11. Johnston TS, Heffron WA: Clinical pharmacy in family practice residency programs. J Fam Pract 13:91, 1981