Podiatry Services at Clinics of a Local Health Department

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FOOT DISORDERS among the aged and infirm have become of increasing concern to public health workers. Because many manifestations of such diseases as diabetes, arthritis, and peripheral vascular disease occur in the foot, their identification is essential to effective treatment. In addition, there is now general recognition that older people, especially those suffering from physical or mental disabilities, are more responsive to treatment if they can be kept ambulatory.

These were some of the reasons that led the District of Columbia Health Department late in 1964 to become the first municipal health department in the United States to establish full-time podiatry clinics as part of its services. These clinics—two at present—are staffed by eight part-time podiatrists, two full-time licensed practical nurses, and two clerks (all civil service employees). The clinics are provided with offices and waiting and treatment rooms and are completely equipped with X-ray and ultrasound apparatus, hydrotherapy tanks, and other physiotherapy modalities.

Planning and Publicizing

When the introduction of podiatry was first proposed, the health department staff was briefed on the range of services that could be provided, and a discussion of procedures for a referral system ensued.

As planning for the establishment and operation of the new clinics continued, two major difficulties were encountered—recruitment of podiatrists and notification of potential patients. The recruitment difficulties were directly related to the salary level for podiatrists set by the Civil Service Commission. It was too low to attract practitioners who could provide the required level of diagnostic and treatment services. Negotiations in which the Commission, the personnel officer of the District of Columbia Department of Public Health, and the supervisory podiatrist participated finally produced an agreement under which starting salaries within the grades established for podiatrists were raised to a level which enabled us to recruit successfully (*1*).

Notifying potential patients of the new service posed an equally thorny problem. As is well known, it is often difficult to reach and to motivate the lower socioeconomic segment of the population, and especially the aged, through the usual media of mass communication. Response was good, however, to information flyers about the podiatric services (fig. 1) inserted in welfare check envelopes and also distributed to persons seeking determinations as to their eligibility for medical assistance. The number of new po-

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diatry patients on public assistance for the 3-month period prior to the distribution of the flyer was 22. For the 3-month period following the mailing, the number rose to 76.

Services Provided

The two podiatry clinics operate Monday through Friday, from 8:15 a.m. to 4:45 p.m., on a regular appointment basis. They receive referrals from, and make referrals to, other public health clinics and to the outpatient departments of local hospitals.

The services provided are consultation, diagnosis, and treatment. Treatment includes routine prophylactic foot care and definitive care for specific foot problems, including minor surgery, physiotherapy, and the prescription of drugs, shoes, and prosthetics. Appliances are ordered from a broad range of sources.

In addition to providing basic foot care to the financially and medically indigent segments of the population, the program provides a distinct professional education service. The staff podiatrists meet with students from the schools of medicine of Georgetown University, Howard University, and George Washington University and also give orientation talks and lectures to physicians and nurses of the health department. In addition, the staff works closely with the division of health education and information in developing pamphlets and audiovisual devices for patient education. (We have recently completed a 35-mm color filmstrip entitled "Foot Disorders Common to the Aged.")

Results

The data collected covering clinic operations during 1965 and 1966 shed light on the effectiveness of the service, the need for its continued availability, and the reasons for its possible expansion. These data cover the growth of the program, source of new cases, the age and sex distribution of patients, types of conditions seen, the relationship of foot conditions to chronic disease, type of service provided, and clinic discharge patterns.

Growth of program. In 1965, when one clinic operated for the entire year and the other for only the latter half, there were 1,377 patient visits. In 1966, there were 3,373, an increase of 145.0 percent. In 1965, the number of patients served was 277. In 1966, the number served was 572, an increase of 105.6 percent.

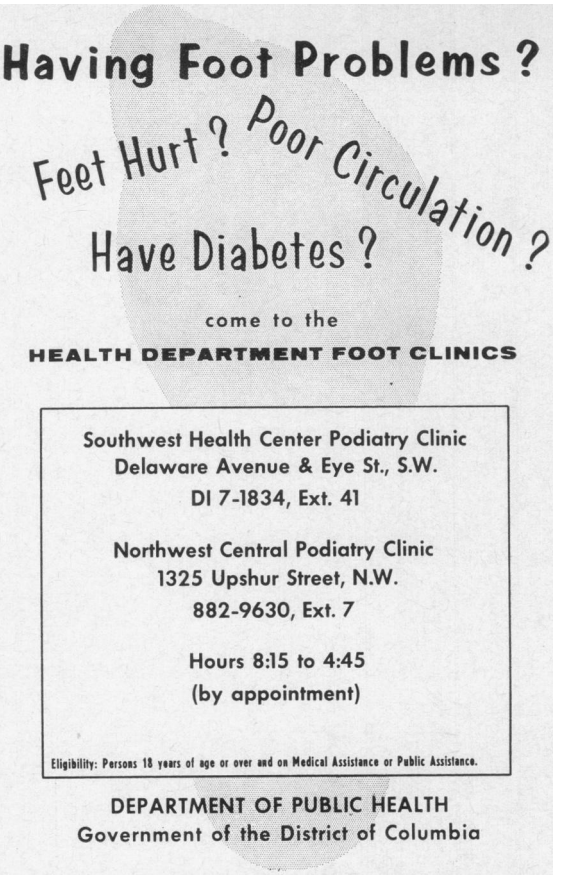

Figure 1. Flyer on the podiatry clinics

The number of new patients receiving service for the first time in 1966 was 64.6 percent greater than the total number of patients admitted to service in 1965. These statistics, like the results of other studies, show a wide prevalence of foot ailments among the population at large and suggest that people will seek foot treatment once the availability of such service is established and advertised.

Source of referrals. More than one-third of the new patients at the podiatry clinics of the District of Columbia Health Department were self-referrals, and referrals from outside the department's facilities are increasing (table 1).

Age and sex of patients. Nearly half of the patients receiving service at the podiatry clinics in 1965 were between 40 and 70 years of age; one-fourth were over 70 and about one-fifth under 40.

The most significant change in the ages of patients receiving care in 1966 occurred among those under 40 years old. The percentage of patients in this age category increased from 17.7 in 1965 to 23.1 in 1966. This increase occurred primarily because treatment of children in the podiatry clinics did not begin until January 1966. Sixty-four of the 456 new patients registered during 1966 were under the age of 18. The number of patients under age 60 seen at these clinics, which had been established primarily to meet a geriatric need, is noteworthy.

Approximately one-third of the total patients served in the clinics were males (table 2). The proportion of males was even higher among patients under 60 years old. These data refute the common notion that foot complaints exist exclusively among elderly women.

Types of conditions. A remarkably broad range of foot conditions have been encountered. Many of them were associated with chronic diseases such as diabetes, osteoarthritis, rheumatoid arthritis, peripheral arteriosclerotic vascular disease, and neurological diseases, such as paralytic stroke, poliomyelitis, Parkinson's disease, and birth defects. These neurological disorders produce abnormal gait patterns with subsequent stress and strain on the foot structure.

The number and types of foot conditions found during the 2-year period are presented within a modified framework of the Interna-

Table 1. Number and percentage distribution of new patients referred for podiatry clinic service, by source of referral, District of Columbia Department of Public Health, 1965 and 1966

Source of referral	Total 1965–66		1966		1965	
	Number	Percent	Number	Percent	Number	Percent
Total	733	100. 0	456	100. 0	277	100. 0
Self	263	35. 9	159	34. 9	104	37. 5
District of Columbia Department of Public Health	289	39. 4	156	34. 2	133	48. 0
Adult and geriatric clinics	132	18. 0	55	12. 1	77	27. 8
Nursing home improvement project	44	6. 0	21	4. 6	23	8. 3
Other department facilities	113	15. 4	80	17. 5	33	11. 9
District of Columbia Department of Public Welfare	73	10. 0	63	13. 8	10	3. 6
Private sources—hospital and other	91	12. 4	65	14. 3	26	9. 4
All other sources	17	2. 3	13	2. 9	4	1. 4

Table 2. Patients served and podiatry clinic visits, by age and sex, 1965 and 1966

Age group and sex	Patients served				Clinic visits			
	1965		1966		1965		1966	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	277	100. 0	572	100. 0	1, 377	100. 0	3, 373	100. 0
Male	103	37. 2	187	32. 7	457	33. 2	988	29. 3
Female	174	62. 8	385	67. 3	920	66. 8	2, 385	70. 7
Under 60	129	100. 0	272	100. 0	547	100. 0	1, 406	100. 0
Male	55	42. 6	108	39. 7	226	41. 3	494	35. 1
Female	74	57. 4	164	60. 3	321	58. 7	912	64. 9
60 and over	120	100. 0	216	100. 0	585	100. 0	1, 617	100. 0
Male	38	31. 7	57	26. 4	174	29. 7	402	24. 9
Female	82	68. 3	159	73. 6	411	70. 3	1, 215	75. 1
Age not stated	28	100. 0	84	100. 0	245	100. 0	350	100. 0
Male	10	35. 7	22	26. 2	57	23. 3	92	26. 3
Female	18	64. 3	62	73. 8	188	76. 7	258	73. 7

tional Statistical Classification of Diseases (table 3). Within this framework, the association of foot conditions with chronic diseases is readily discernible.

Table 3. Number of foot conditions observed among podiatry clinic patients, by diagnostic categories, 1965 and 1966

Diagnostic categories	1965	1966
Total	451	1, 192
Infective and parasitic diseases:		
Dermatophytosis	12	30
Other	2	0
Benign neoplasms (exostosis and other)	1	6
Diabetes mellitus—ulcers	5	18
Diseases of the circulatory system:		
General arteriosclerosis—obliterans	2	12
Other—chilblains, varicose veins, ulcers, and so forth	1	6
Diseases of the skin and cellular tissue:		
Infections and other skin conditions:		
Cellulities, abscess, lymphangitis	6	13
Eczema	2	7
Psoriasis	2	3
Corns	87	196
Callosities	99	239
Other	10	63
Infections and other diseases of the nail:		
Onychia, paronychia, and so forth	22	36
Hypertrophy	4	13
Ingrown	13	40
Onychauxis	14	43
Onychogryphosis	35	42
Onychophosis	1	3
Other conditions of the nail	0	7
Diseases of the sweat and sebaceous glands:		
Anhidrosis	8	23
Hyperhidrosis, bromidrosis, and so forth	6	9
Other diseases of the skin and cellular tissues	8	16
Diseases of the bones and organs of movement:		
Arthritis and rheumatism	10	25
Other diseases of bones and joints—osteochondrosis, osteoporosis, and so forth	4	13
Synovitis, bursitis, tenosynovitis	10	29
Other diseases of muscle, tendon, and fascia	0	8
Deformities of the bone:		
Flatfoot	8	47
Hallux valgus and varus	25	67
Clubfoot	0	4
Deformities of the toe	17	36
All other deformities	15	74
All other local foot diseases	3	17
Injuries:		
Fractures of the tarsal and metatarsal bones or phalanges of the foot	2	5
Sprains and strains	5	10
Lacerations, contusions	9	15
All other injuries	3	17

More than half of the foot conditions observed were associated with diseases of the skin and cellular tissue. Infection and diseases of the skin falling under this major category accounted for 68 percent of the foot conditions, and 65 percent of these foot conditions were corns and calluses. Nail infections and other diseases of the nail accounted for 25 percent of the diagnoses under the major category of diseases of the skin and cellular tissue.

Diseases of the bones and organs of movement was the category accounting for the second largest number of foot conditions—for 24 percent of all foot conditions.

Types of treatment. The number of treatments received by patients at the podiatry clinics increased markedly in 1966. The total services supplied increased from 2,202 in 1965 to 7,522 in 1966, or by 242 percent (table 4). The major categories of treatment provided were routine prophylaxis, hydrotherapy (fig. 2), strapping and redressing, and surgery.

Discharges. Only 11 of the 277 new patients seen in 1965 were completely discharged as requiring no further care. This pattern of a small number of full discharges prevailed also in 1966. Like similar results of other studies, it points up the chronic nature of many foot conditions in the geriatric population and the need for continuing maintenance care (*2*, *3*).

Discussion

Results achieved over the short period of 2 years indicate clearly the need to expand the podiatric services of the District of Columbia Department of Public Health. Based on the current rate of growth, podiatric facilities are approaching capacity and will simply not be able to accommodate the projected caseload in the months to come.

The podiatric needs of a community, however, do not manifest themselves only in crowded treatment rooms. More school health nurses and parents of eligible children are seeking appointments for youngsters with foot problems. Since any sizable influx of this age group would overwhelm the existing clinics, it may be appropriate to set up a separate children's clinic. A program of regular foot examinations in the public schools should supplement such a facility.

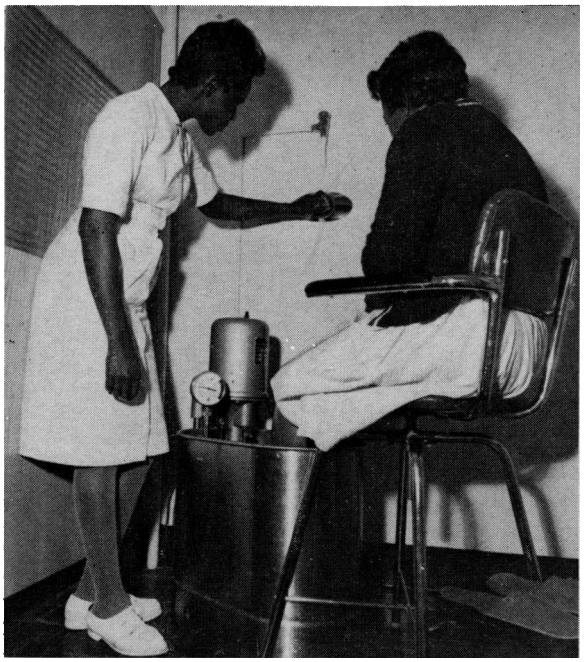

Figure 2. Hydrotherapy

At present, many of the patients from public housing clinics referred to the podiatry clinic are unable to keep appointments because they cannot walk well. A part-time podiatry clinic would be a valuable adjunct to the public housing clinics (*4*).

Naturally, the provision of new services and expansion of existing ones will require more personnel and facilities. The addition of a podiatrist here and a treatment room there will not adequately meet the growing demand for foot care.

At present, the podiatry staff positions under the department of public health, include, in addition to positions at the treatment clinics, one full-time position in the outpatient department of the District of Columbia General Hospital, one part-time consultant position at the hospital for chronic disease, two part-time positions in the District's home care program, and two part-time positions with the District's nursing home improvement project.

It seems logical, especially since expansion of the podiatric program is anticipated, to consider the establishment of an organizational unit for podiatry which would coordinate those services now being administered by various separate programs of the department of public health. The supervisor should be a podiatrist, and the unit should be at a level in the department equal to other units providing similar services. Under such a system, podiatric services could be provided more efficiently.

Summary

The first full-time podiatry clinics in a municipal health department were established late in 1964 in the District of Columbia.

By 1966, the number of new eligible patients

Table 4. Number of treatments in podiatry clinics and percentage distribution by type, 1965 and 1966

Types of treatment	1965 [1]		1966		Both years	
	Number	Percent	Number	Percent	Number	Percent
Total	2,022	100.0	7,522	100.0	9,544	100.0
Routine prophylaxis [2]	729	36.1	2,423	32.2	3,152	33.0
Hydrotherapy	315	15.6	1,537	20.4	1,852	19.4
Strapping and redressing	347	17.2	1,175	15.6	1,522	15.9
Drug prescriptions	139	6.9	686	9.1	825	8.6
Physiotherapy	61	3.0	127	1.7	188	2.0
Minor surgery [3]	248	12.3	887	11.8	1,135	11.9
Injections [4]	45	2.2	172	2.3	217	2.3
Casting	12	.6	26	.3	38	.4
Other types	126	6.2	489	6.5	615	6.4

[1] Only 1 of the 2 clinics was in operation during the first 6 months of 1965.
[2] Includes general nail care and reduction of hyperkeratoses.
[3] Includes correction of ingrown toenails, incision and drainage, aspiration, debridement of ulcers, excision of warts and cysts, and surgical correction of corns and hammer toes.
[4] Includes local anesthetics, intra-articular and peri-articular steroid infiltrations, and peripheral nerve blocks.

seeking services at these clinics had increased by 65 percent over the preceding year. The proportion of patients who were male (35 percent) and of patients under age 60 (47 percent) who visited the clinics in these 2 years is regarded as high. Also, a large number of adolescent and preadolescent children (under age 18) sought podiatric care; this group represented 13 percent of the 456 new patients seen in 1966.

The observation that only 11 of 277 new patients seen in 1965 were discharged as requiring no further care underscores the chronicity of most foot conditions. While painful hyperkeratoses and nail disorders were the most prevalent complaints, a substantial number of foot conditions associated with chronic disease were also observed.

The increasing demand for services during the first 2 years of operation of the podiatry clinics clearly indicates a need for expansion. The number of regular podiatry clinics should be increased and additional ones established to meet the requirements of children and of public housing residents. Consolidation of the podiatry programs of the District of Columbia Department of Public Health into a separate unit of the department also appears desirable.

REFERENCES

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Services to Medicare Beneficiaries

Two-thirds of the home health agencies participating in the Medicare program are providing services of physical therapists in the home and one-third offer homemaker-home health aide services.

Visiting nurse care is made available in all of the 1,800 home health agencies. Medicare beneficiaries are entitled to up to 100 home health visits under part A, the hospital insurance program, and up to 100 visits under part B, the voluntary medical insurance program.

To qualify for participation in Medicare, an agency must offer skilled nursing service plus at least one additional service—physical therapy, occupational therapy, speech therapy, medical social services, or homemaker-home health aide services. A survey of 1,200 of the participating 1,800 agencies shows that physical therapy was the second service most frequently provided.

Many agencies provide more than one additional service and some offer all five services and others as well, such as dental care, vocational rehabilitation, drugs, laboratory and X-ray services, and home-delivered meals.

The organizations serving as home health agencies include State and local health departments, visiting nurse associations, hospitals, and independent community agencies.