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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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MAY 31, 1979

The Honorable Warren G. Magnuson
Chairman, Committee on Appropriations
United States Senate SEN00300

The Honorable Jamie L. Whitten
Chairman, Committee on Appropriations
House of Representatives HSE00300

In response to a requirement in the Conference report on the Department of Defense's fiscal year 1977 appropriations (H. Rept. 94-1475), we are reporting on perceptual and visual training as a potential benefit under the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS).

The Conference report also required that we determine the feasibility of and cost savings from using Medicare hospital payment criteria in making CHAMPUS payments for hospital care. We reviewed this matter first at the Committees' request and reported on it in July 1977 (HRD-77-128). Since then, in response to the Committees' continuing interest in CHAMPUS, we have completed reviews on two other matters of more immediate concern to the Committees--(1) the impact of changing CHAMPUS physician payment criteria from the 75th to the 90th percentile and (2) the Defense Department's administration of the legislative requirement that CHAMPUS beneficiaries residing within 40 miles of uniformed services hospitals obtain nonemergency inpatient care there rather than under CHAMPUS.

The Department deleted perceptual and visual training as a covered benefit under CHAMPUS effective March 9, 1975. The Conference Committee asked that we determine

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--how much perceptual and visual training cost CHAMPUS,

--whether such training is provided under other federally sponsored health care or insurance programs and how much it costs, and

--how cost effective this training is compared to the potential medical cost if the training is not provided.

In lieu of determining the training's cost effectiveness, the Appropriations Committees later asked us to obtain current views on this form of training (including what its value is and whether it helps eliminate the need for surgery) from such parties as the National Institutes of Health and associations of optometrists and ophthalmologists.

As shown in the enclosure to this letter, in 1974--the last full year perceptual and visual training was included as a CHAMPUS benefit--CHAMPUS costs for this training amounted to $76,800. Also, such training was included only sporadically in other federally financed health programs.

Optometrists and ophthalmologists have widely differing opinions about the medical value of perceptual and visual training in treating vision disorders. Officials of the National Institutes of Health's National Eye Institute said no existing scientific evidence conclusively proves the medical value of such treatment. According to these officials, the Institute has not funded a study to determine the effectiveness of such training because there have been very few ideas on how to carry out a valid scientific study. All previous requests to the Institute for grants to fund proposed studies have been rejected because they were not scientifically designed.

We trust the enclosed information will satisfy the Committees' interest in perceptual and visual training as a CHAMPUS benefit. We will gladly discuss the matter further if you wish.

As agreed with your offices, we are providing copies of this report to the Department of Defense and other interested parties.

Comptroller General
of the United States

Enclosure

ENCLOSURE I

PERCEPTUAL AND VISUAL TRAINING AS A CHAMPUS BENEFIT

BACKGROUND

The Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) provides financial assistance for medical care provided by civilian sources to dependents of active duty members, retirees and their dependents, and dependents of deceased members of the uniformed services. 1/ The program was authorized by the Dependents' Medical Care Act of 1956 (Public Law 84-569), which provided benefits only to dependents of active duty members. The Military Medical Benefit Amendments of 1966 (Public Law 89-614) expanded program benefits and added new classes of beneficiaries.

CHAMPUS benefits are divided into two categories--basic and handicap. Basic benefits apply to all beneficiaries and cover both inpatient and outpatient medical care, including surgery, hospitalization, outpatient prescription drugs, X-rays, clinical laboratory tests, and psychiatric care. Handicap benefits apply only to spouses and children of active duty members and cover rehabilitative services and care for moderately or severely mentally retarded or seriously physically handicapped persons. The fiscal year 1977 costs were about $531 million for basic benefits and about $3.6 million for handicap benefits.

Perceptual and visual training has been defined by the American Optometric Association as procedures using prescribed visual exercises and tasks, lenses and prisms, or specific equipment for developing or changing selected visual functions. Examples of visual problems treated by this training are amblyopia (dimness of vision due to nonuse of an eye, e.g., a lazy eye) and strabismus (condition of being cross-eyed). Training is also provided for the inability to (1) align both eyes quickly and accurately on an object, (2) maintain proper eye alignment, or (3) move the eyes quickly and accurately in a coordinated manner.

1/The "uniformed services" are the Army, Navy, Air Force, Marine Corps, and Coast Guard and the commissioned corps of the Public Health Service and the National Oceanic and Atmospheric Administration.

Training programs provided by optometrists generally last 3 months to 1 year. Charges for perceptual and visual training by optometrists with whom we talked ranged from $15 per hourly session to $135 per month for a year-long program of twelve 1-hour office visits each month plus $25 for each of four progress evaluations during the year following training.

According to the Department of Defense (DOD), perceptual and visual training was deleted as a covered benefit under CHAMPUS because DOD could not legally pay for such training under the legislation. DOD said that much of the perceptual and visual training provided to CHAMPUS beneficiaries was not medically necessary but was intended to help beneficiaries overcome educational deficiencies, improve academic abilities, and make social adjustments.

The Assistant Secretary of Defense (Health Affairs), in a letter to a Senator regarding the deletion of perceptual and visual training, stated that the Congress reaffirmed DOD's position by including in section 743 of Public Law 94-419 the following statement:

> "None of the funds contained in this Act available for the Civilian Health and Medical Program of the Uniformed Services under the provisions of section 1079(a) of title 10, United States Code, shall be available for * * * any other service or supply which is not medically necessary to diagnose and treat a mental or physical illness, injury, or bodily malfunction as diagnosed by a physician, dentist, or a clinical psychologist, as appropriate."

The Assistant Secretary pointed out that optometrists were not mentioned.

COST OF PERCEPTUAL AND VISUAL TRAINING AS A CHAMPUS BENEFIT

DOD estimated that deleting perceptual and visual training would reduce CHAMPUS program costs by about $75,000 per year. CHAMPUS claims data showed that during 1974--the last full year perceptual and visual training was a benefit--CHAMPUS costs for such training amounted to about $76,800. DOD spent about $19,300 for perceptual and visual training in 1975 before it was deleted as an authorized benefit under the program in March.

ENCLOSURE I

EXTENT OF INCLUSION OF PERCEPTUAL AND VISUAL TRAINING IN OTHER FEDERALLY FINANCED HEALTH PROGRAMS

To determine whether other federally financed health programs cover perceptual and visual training and at what cost, we reviewed the benefits provided by the various Federal Employees Health Benefits program plans and spoke with some plans' representatives. We also reviewed Department of Health, Education, and Welfare (HEW) programs, such as the Community Health Centers, Maternal and Child Health, Migrant Health, Indian Health, Medicare, Medicaid, and Head Start programs and programs under the Rehabilitation Services Administration.

Federal Employees Health Benefits program

This program includes two Government-wide plans administered by Blue Cross/Blue Shield and Aetna, which covered about 73 percent of the total program enrollees at the time of our review. Neither plan offers visual training as a covered benefit.

The program also includes 12 Employee Organization Plans, which covered about 18 percent of Federal Employees Health Benefits program enrollees. Of these plans, six pay for some visual training under certain conditions, such as only when a medical problem or illness is involved or only when the training is provided by an ophthalmologist for treatment of amblyopia or strabismus. In 1979 one of these six plans changed the conditions for coverage to include eye exercises and visual training provided by an optometrist. The cost of these benefits was not readily available, but plan officials believed it to be minimal.

At the time of our review, there were 46 comprehensive prepaid medical plans in the Federal Employees Health Benefits program, accounting for about 9 percent of program enrollees. Of these plans, 22 provided some coverage for visual training under certain conditions, such as a medical indication of need or referral by a medical doctor. Of these 22 plans, 3 had never received a request for perceptual and visual training and 1 had received only one such request. Also, based on statements of other plan officials, apparently only one plan, which had two full-time specialists to give this training, provided it to a significant extent.

HEW's Early and Periodic Screening, Diagnosis, and Treatment program

Of the various HEW programs, only the Early and Periodic Screening, Diagnosis, and Treatment program under Medicaid provides much visual training. This program, which is for children under 21 years of age, requires States to become involved in preventive health care for children by early identification and treatment of physical and mental defects. As a part of the program, a State must provide eyeglasses and other treatment for visual defects, subject to such utilization controls as the State may impose.

According to an HEW program official, the Early and Periodic Screening, Diagnosis, and Treatment program recognizes optometrists as professionals who may provide treatment for visual defects, but HEW has not defined or specified the types of treatment (other than eyeglasses) for which States should provide coverage. HEW has permitted the States to determine the methods of treatment to be covered; as a result, perceptual and visual training would not be excluded from Federal reimbursement if a State elected to include it as a covered service.

By contacting program coordinators in 49 States 1/ and the District of Columbia, we determined that 21 States and the District did not cover perceptual and visual training for treatment of eye defects. Of the 28 States that did cover such training, 24 required authorization through the State program before treatment. Only 3 of the 28 would not pay for training when provided by an optometrist.

At the time of our review, three States had not received any authorization requests in the previous 12 months, and one of these had received only three requests, which it denied, in the previous 7 years. Only 11 of the remaining 21 States requiring a prior authorization maintained statistics on the number of requests received and approved in a 12-month period. These ranged from 2 requests and 2 approvals in one State to about 300 requests and 250 approvals in another.

Of the 28 States that recognized visual training as a treatment method for certain eye defects, 3 did not have any cost limitations. Of the 25 States that did,

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1/Arizona does not have a Medicaid program.

--three paid the prevailing charge;

--four paid for office visits on a usual, customary, and reasonable charge basis;

--eight had a fee limit on each half-hour office visit ranging from $4.00 to $24.50;

--eight had a cost limit on each office visit--regardless of the time involved--ranging from $4.50 to $15.00; and

--two had a limit on the total cost of treatment--one of $80 and the other of $200.

At the time of our review, information on the total cost of providing treatment was available in only 5 of the 28 States. These five States provided treatment to about 500 people at a total cost of about $31,000 during the last 12-month period for which they had cost data--calendar year 1976 for two States and the 12 months ended about March 1977 for the other three.

OPINIONS ON THE MEDICAL VALUE OF PERCEPTUAL AND VISUAL TRAINING

Optometrists and ophthalmologists have widely differing opinions about the medical value of perceptual and visual training in treating vision disorders. Officials of the National Institutes of Health's National Eye Institute (NEI) believe that not enough research has been done to confirm the value of perceptual and visual training for this purpose.

Optometrists' views

The American Optometric Association contends that DOD's exclusion of vision therapy as a covered CHAMPUS benefit discriminates against optometrists. The Association maintains that this exclusion in effect forces beneficiaries, in order to be reimbursed by CHAMPUS, to select only surgery performed by ophthalmologists as the method of treating visual problems.

According to the Director of the Association's Washington, D.C., office, although CHAMPUS regulations do cover surgery, the recognized medical mode of treatment for strabismus and amblyopia, they do not permit a beneficiary to choose vision therapy, performed by an optometrist, for treating the same conditions. The Association believes that,

if a health care service or treatment of a health condition is covered by CHAMPUS, a beneficiary should be entitled to select a qualified practitioner or qualified mode of treatment recognized by State licensure regulations.

The College of Optometrists in Vision Development serves as a spokesman for optometrists engaged in perceptual and visual training. According to the College, the frustrations of poor vision may cause considerable stress and associated physical disorders. Also, children with undetected vision problems may have reading and other academic problems, which may in turn lead to behavioral problems.

The College notes that, although optometrists do not teach reading skills, they can make the kind of visual examination to determine whether a reading problem is at least partially due to a visual problem, which they can correct or reduce by using lenses and visual training. The evidence that visual training works is, according to the College, as indisputable as the evidence that psychiatric and physical therapy procedures work.

However, the College's December 1976 "Annual Review of Literature in Developmental Optometry" acknowledged that, in general, many studies in the area of perceptual and visual training are meaningful, but suffer from shortcomings in experimental design, data analysis, or fundamental concept. The article added that many problems exist which make it difficult to reach conclusions about or advocate vision therapy.

The article listed the following problems as possibly being prominent among various vision therapy practitioners.

--In place of a diagnostic plan, therapy involves all available techniques, and all patients in training receive virtually the same kind of treatment program.

--Vision problems are not fully explored in reference to other contributing factors.

--Prognosis is sometimes unrealistically stated. For example, large angle strabismics might be given months of therapy, when motor fusion may be impossible to develop without surgery.

--Because a practitioner may feel that therapy is beneficial in providing some form of enhancement of performance and cannot do any harm, it is viewed as a panacea.

The December 1976 article concluded: "Vision therapy is extremely beneficial, when discriminately applied and when properly administered!" The article listed 14 remaining issues needing to be more thoroughly investigated, including

--the importance of the patient's age,

--the comparative effectiveness of various procedures and relative importance of various abilities, and

--the level of proficiency to be attained on each training task.

Ophthalmologists' views

According to members of the American Academy of Ophthalmology and the American Association of Pediatric Ophthalmologists, they do not generally use the terms "visual training" and "visual therapy" because these are ambiguous, all-inclusive terms referring to what optometrists are doing in the area of learning disorders. "Orthoptics"--a term used by ophthalmologists--refers to various forms of eye training, including eye-patching and use of lenses, utilized to treat strabismus and amblyopia.

The two above-mentioned organizations, as well as the Association of University Professors of Ophthalmology and the American Academy of Ophthalmology and Otolaryngology, agree that, before any visual training used in the orthoptic treatment of strabismus or amblyopia is begun, a complete eye examination should be made by an ophthalmologist to determine the specific problems and detect possible disease. According to the Academy of Ophthalmology, eye dilation is an essential procedure to identify the more difficult-to-diagnose and potentially serious eye diseases. Optometrists, according to Academy members, cannot dilate the eyes to detect early stages of certain potentially correctable problems because they lack the medical background and they are prohibited from doing so by law in most States.

Further, according to the Academy, without having had a complete eye examination, a person could be treated for amblyopia or strabismus when there might be an underlying and treatable organic problem that could go undetected and later result in blindness or even death. Examples of such problems are retinoblastomas (tumors) and peripheral retinal disease.

Ophthalmologists also disagree with optometrists on how long orthoptics should be used to attempt to correct a patient's problem. Optometrists will generally continue orthoptic treatments over much longer periods (such as a year or more) than ophthalmologists. Members of the American Academy of Ophthalmology and the Association of Pediatric Ophthalmologists are pessimistic about the results to be achieved from long-term sessions; they usually limit treatments to 1 or 2 months.

Academy and Association members claim that there is no support for some optometrists' contention that a person with strabismus will have to have surgery if perceptual and visual training is not provided. The ophthalmologists with whom we discussed this subject believe, however, that surgery is the only way of correcting strabismus both functionally and cosmetically.

Members of the Academy said surgery has not proven to be of real value in cases where amblyopia is the sole problem. They added that no scientifically controlled studies have been performed that indicate whether eye exercises by themselves are more beneficial than eye-patching in treating such cases. Rather, ophthalmologists believed that using eye exercises without eye-patching in treating such cases is worthless. They were not aware of any scientifically controlled studies on the value of perceptual and visual training. According to them, completing such a study would probably take 3 or 4 years.

Views of National Eye Institute officials

NEI has not funded or made a study to determine whether perceptual and visual training was beneficial and could be considered a form of medical treatment. According to NEI officials, little consideration has been given to a vision training study because there have been very few ideas on how to carry out a valid scientific study in this area. Also, previous requests from researchers for grants to fund proposed vision training studies have been rejected because they were not scientifically designed.

NEI officials said that many optometrists who specialize in visual training are providing treatment to patients with reading or learning difficulties. In the opinion of these officials, most of the patients have learning rather than medical problems and need only a better teacher or more individualized instruction. The officials did not believe this type of perceptual and visual training should be included as

a health insurance program benefit. They believed a scientific study was needed to determine whether any medical benefits might be derived from visual training.

According to NEI officials, "good" results claimed by persons in the practice of visual training are not amenable to scientific analysis because visual training methods vary among practitioners, and the same practitioner may treat two patients with the same problem by different methods. The officials questioned the value of a treatment method that could neither be used successfully by all practitioners nor be beneficial to most patients with the same or a similar problem.

When informed of NEI's views on the lack of valid studies of the value of perceptual and visual training, the American Optometric Association requested additional time, which we granted, to provide more studies on the subject. NEI, after reviewing these studies, advised us that:

> "Staff of the National Eye Institute has carefully reviewed available literature, including that provided by your office [the Association studies], on visual training methods as therapy for strabismus, amblyopia, oculomotor difficulties, dyslexia and other sensory and motor disorders of vision. It is still our opinion that current knowledge is inadequate to evaluate the effectiveness of visual training as a treatment for any of these disorders. * * *"